

135060

JPRS-UMA-87-014

6 MARCH 1987

19990421
060 127066661

USSR Report

MILITARY AFFAIRS

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

3
89
AP/25

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service (NTIS), Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semimonthly by the NTIS, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

6 MARCH 1987

USSR REPORT
MILITARY AFFAIRS

CONTENTS

MILITARY-POLITICAL ISSUES

Moscow MD Officer Abuses His Official Position (V. Zhitarenko; KRASNAYA ZVEZDA, 23 Jan 87)	1
Officers Disciplined for Heat Supply Breakdown in Severomorsk (P. Ishchenko; KRASNAYA ZVEZDA, 18 Jan 87)	2

WARSAW PACT

Communiqué of Defense Ministers' Committee (KRASNAYA ZVEZDA, 5 Dec 86)	4
Lt Gen Sadovnikov on Tasks of New Training Year (V. Sadovnikov; KRASNAYA ZVEZDA, 2 Dec 86)	6

ARMED FORCES

Belorussian Conference on Military Patriotic Training (SOVETSKAYA BELORUSSIYA, 19 Sep 86)	10
Mar Tolubko Reflects on Officer's Sense of Responsibility (V. Tolubko; KRASNAYA ZVEZDA, 12 Nov 86)	11
Lt Col Ziyeminsh Discusses Cadre Work (Ziyeminsh; KRASNAYA ZVEZDA, 19 Oct 86)	16
Col Vasiliyev Discusses Cadre Work (V. Vasiliyev; KRASNAYA ZVEZDA, 22 Oct 86)	20
Tretyak, Gorshkov, Tolubko Attend Commemoration (B. Khudoleyev; KRASNAYA ZVEZDA, 2 Dec 86)	24

Obituary: Lt Gen P.I. Galkin (P. I. Galkin; KRASNAYA ZVEZDA, 28 Oct 86)	25
Briefs	
Obituary: Col A.N. Shakhov	26
Obituary: Maj Gen S. K. Alekseyev	26
GROUND FORCES	
T-72 Tank: Preparations for Summertime Use (P. Balashov, N. Zinkin; TEKHNIKA I VOORUZHENIYA, No 3, Mar 86)	27
Lt Gen Korbutov on Lessons From Socialist Competition (I. Korbutov; KRASNAYA ZVEZDA, 25 Oct 86)	33
Night Exercise Demonstrates Battalion's Shortcomings (Yu. Klenov; KRASNAYA ZVEZDA, 22 Oct 86)	38
AIR/AIR DEFENSE FORCES	
Maj Gen Garbuzenko Calls for Review of Shortcomings in Training (V. Garbuzenko; KRASNAYA ZVEZDA, 21 Oct 86)	41
Lt Gen Sviridov Notes Lack of Realism in Pilot Training (I. Sviridov; KRASNAYA ZVEZDA, 28 Oct 86)	45
Lt Gen Rudnyy on Duties of Aviation Medical Officer (N. Rudnyy; KRASNAYA ZVEZDA, 22 Nov 86)	48
GSFG Unit Seeks To Improve Operations Against Jamming (A. Krasov; KRASNAYA ZVEZDA, 30 Nov 86)	52
Maj Gen Avn Ilyushkin on Need for Thrift in Aviation Training (V. Ilyushkin; KRASNAYA ZVEZDA, 5 Dec 86)	55
Mar Silantyev Reviews Book by Mar Pokryshkin (A. Silantyev; KRASNAYA ZVEZDA, 12 Nov 86)	59
MILITARY EDUCATIONAL FACILITIES	
Discussion of Experiment at Tambov Aviation School (Burdyga; KRASNAYA ZVEZDA, 4 Nov 86)	62
Lt Gen Morozov Examines Selection of Candidates for Schools (Morozov; KRASNAYA ZVEZDA, 13 Nov 86)	66
MILITARY HISTORY	
MSU Kulokov Commemorates Marshal Zhukov (V. Kulikov; KRASNAYA ZVEZDA, 30 Nov 86)	69

FOREIGN MILITARY AFFAIRS

Western Development, Use of Air Cushion Vehicles (A. Popov; KRASNAYA ZVEZDA, 22 Oct 86)	74
Effects of EMP Studied (V. Simonov; VESTNIK PROTIVOVOZDUSHNOY OBORONY, No 3, 1985)	77
British Military Preparations Criticized (V. Markushin; KRASNAYA ZVEZDA, 7 Jan 87)	81
KRASNAYA ZVEZDA Views NATO's Conventional Arms Policy (KRASNAYA ZVEZDA, 11 Jan 87)	84

/7310

MILITARY-POLITICAL ISSUES

MOSCOW MD OFFICER ABUSES HIS OFFICIAL POSITION

PM301453 [Editorial Report] Moscow KRASNAYA ZVEZDA in Russian 23 January 1987 First Edition carries on page 2 under the headline "In a 'Special' Position" a 1,800-word report by correspondent Colonel V. Zhitarenko from the Moscow Military District. It describes how two enlisted men in an army camp got drunk and drove a vehicle past the checkpoint and away from the camp without being stopped. In addition to the two privates being punished, the investigation into the incident resulted in the following measures being taken: "Captain Salikhov was removed from the post of company commander. Major V. Zadunayev, who failed to install proper order in the vehicle pool, was cautioned for incomplete compliance with his official duty. Political worker Major A. Kuznetsov was severely reprimanded for serious omissions in organizing political education work with personnel. A number of other garrison officials, including Lieutenant Colonel Zibarev, were also called strictly to account."

The report is highly critical of Lt Col B. V. Zibarev for failing to react promptly to rectify the shortcomings and laxity exposed at the camp and goes on to reveal that he enjoys a "special position," apparently by virtue of the fact that his father is Major General V. G. Zibarev, who "arranged his admission to a military academy." The report concludes by noting these recent reports from Zibarev's garrison: "Zibarev demonstratively failed to attend a conference of garrison officials; Zibarev brushed aside complaints from personnel; Zibarev has established certain special privileges in the supply of goods in short supply to officers of the garrison directorate and, thus, to himself. It turns out that he is still in a 'special' position, does it not?"

/9599
CSO: 1801/99

MILITARY-POLITICAL ISSUES

OFFICERS DISCIPLINED FOR HEAT SUPPLY BREAKDOWN IN SEVEROMORSK

PM231547 Moscow KRASNAYA ZVEZDA in Russian 18 Jan 87 First Edition p 3

[Report by Captain Lieutenant P. Ishchenko, KRASNAYA ZVEZDA correspondent: "Eliminating Consequences of Malfunction"]

[Text] A session of the Northern Fleet Military Council was held 15 January under the leadership of Fleet Commander Admiral I. Kapitanets to discuss in detail the situation prevailing in the city of Severomorsk as a result of a malfunction [avariya] in the heat and water supply system. Vice Adm S. Bargin, member of the Military Council and chief of the Fleet Political Directorate, told KRASNAYA ZVEZDA's correspondent that, as a result of the measures that have been taken, virtually all homes in Severomorsk are now connected to the heat supply system.

The main cause of the malfunction, Vice Adm S. Bargin noted, was the irresponsibility and negligence of Colonel S. Pykhach and Col B. Khanukov, chiefs of the fleet's naval engineering service, Lieutenant Colonel V. Mager, chief of the Severomorsk garrison naval engineering services section, and other officials. The Military Council severely reprimanded Rear Adm V. Denisov, deputy fleet commander for rear services and chief of the fleet's Rear Services, Major General V. Zakimatov, deputy fleet commander for construction work, and Captain 1st Rank A. Naumov, chief of the fleet's Capital Construction Directorate, for allowing mistakes in preparations for the winter.

The process of liquidating the consequences of the malfunction and the analysis of its causes brought to light serious shortcomings in political education work with service personnel in naval engineering services subunits, responsibility for which must be borne by the political organs headed by Capt 1st Rank A. Prisyazhnyuk and Capt 1st Rank L. Paralov.

The Military Council decided to recommend that Col B. Khanukov, deputy chief of the fleet's naval engineering services, be dismissed from the ranks of the Armed Services, and that Lt Col V. Mager, chief of the Severomorsk naval engineering services section, be removed from his post and demoted.

The Military Council laid down specific measures to finally eliminate the consequences of the malfunction and provide assistance to the victims. In

addition, specially created commissions have been instructed to thoroughly study the actual state of affairs regarding heat and water supplies in all of the fleet's garrisons, swiftly eliminate any existing shortcomings, and ensure the necessary redundancy in systems.

The fleet command and local organs of power are doing everything necessary to rule out any similar occurrences in the future.

/9599

CSO: 1801/99

WARSAW PACT

COMMUNIQUE OF DEFENSE MINISTERS' COMMITTEE

Moscow KRASNAYA ZVEZDA in Russian 5 Dec 86 p 3

["Communiqué of Defense Minister's Committee for the States Participating in the Warsaw Pact"]

[Text] On 1-3 December 1986 the Defense Minister's Committee for states participating in the Warsaw Pact met in Warsaw, capital of the Polish People's Republic.

Participants at the meeting included: Minister of National Defense for the People's Republic of Bulgaria General of the Army D. Dzhurov, Minister of Defense for the Hungarian People's Republic Colonel General F. Karpati, Minister of National Defense for the German Democratic Republic General of the Army G. Kessler, Minister of National Defense for the Polish People's Republic General of the Army F. Siwicki, Minister of National Defense for the Socialist Republic of Rumania Colonel General V. V. Milea, Minister of Defense for the Union of Soviet Socialist Republics Marshal of the Soviet Union S. L. Sokolov, Minister of National Defense for the Czechoslovak Socialist Republic General of the Army M. Vaclavik, Commander-in-Chief of the Combined Armed Forces of the Warsaw Treaty Organization Member States Marshal of the Soviet Union V. G. Kulikov, and Chief of Staff for the Combined Armed Forces of Warsaw Treaty Organization Member States General of the Army A. I. Gribkov.

In addition the leadership of the ministries of defense for Warsaw Treaty Organization member states and the joint command of the its Combined Armed Forces were present at the meeting.

The Minister of National Defense for the Polish People's Republic chaired the meeting.

Participants at the Defense Ministers' Committee meeting discussed the results and conclusions of the Reykjavik Summit Meeting. Their unanimous opinion was that Comrade M. S. Gorbachev's recommendations represented a real constructive contribution by the socialist countries to the matter of fighting for disarmament and general security.

The Defense Ministers' Committee stressed the importance of the large-scale peace initiatives advanced at the 1986 Budapest meeting by the Political

Consultative Committee of Warsaw Treaty Organization member states in reducing the level of military confrontation, healing the international situation and eliminating the danger of nuclear war. Recommendations by the organization's states on significantly reducing armed forces and conventional weapons in Europe with the appropriate reduction in military expenditures are especially timely as this would significantly add to the program leading to the elimination of nuclear weapons and other types of weapons of mass destruction.

Participants at the meeting expressed their deep concern over the exacerbated military-political situation on the European Continent and in the world as a result of actions by the U.S. and NATO who oppose the curtailment of the arms race and the elimination of nuclear testing and who continue to expand their military potential. At the same time the committee stressed its adherence to treaties and agreements in the area of weapons limitations and disarmament and also expressed the need to have the U.S. strictly adhere to its agreement on limiting strategic offensive weapons and the treaty limiting anti-missile defense systems. It is the failure to observe the latter that has led to the increase in the arms race and its expansion into space and also to the destruction of the foundations of Soviet-American treaties on nuclear and space weapons. The committee also stressed its desire to expand military cooperation among the unions of countries further and to strengthen the unity of fraternal armies. Measures covering Warsaw Treaty Organization member countries' defensive capabilities have been planned so that the military parity that has developed between the Warsaw Treaty Organization and NATO is not violated and so that the military readiness of the Combined Armed Forces of the Warsaw Treaty Organization member states which is guaranteeing their security is supported by the combined efforts of the members.

The Defense Ministers' Council adopted decisions on all the topics under discussion.

The meeting took place in a business-like setting and in the spirit of mutual understanding.

12511
CSO: 1801/88

WARSAW PACT

LT GEN SADOVNIKOV ON TASKS OF NEW TRAINING YEAR

Moscow KRASNAYA ZVEZDA in Russian 2 Dec 86 p 2

[Article by Lieutenant General V. Sadovnikov, Deputy Commander-in-Chief for Military Training for the Group of Soviet Forces in Germany under the "Military Training: Quality and Effectiveness" rubric: "Relying on Acceleration". First paragraph is KRASNAYA ZVEZDA introduction.]

[Text] The new training year will undoubtedly also be a year of searching for more effective ways to accelerate military training. At the request of KRASNAYA ZVEZDA correspondent Lieutenant Colonel N. Panyukov, Lieutenant General V. Sadovnikov, Deputy Commander-in-Chief for Training for the Group of Soviet Forces in Germany, discusses some trends in that search.

Most of all, I want to concentrate attention on three areas: planning the training process, improving the methodological skill of officers and developing the material-technical training base. In my opinion, this is where reserves for increasing the effectiveness of military training are concealed.

We are attaching special significance to the search for ways to improve the methodological level of officers while considering the requirements to intensify the training process and make it as close as possible to real battle conditions. This was the central link in our work in preparation for the new training year. And we must not be stagnant. When people realize this, they achieve specific results.

Take the Chertkov Guards Tank Regiment imeni Marshal of Tank Forces M. Ye. Katukov. This unit is strict in ensuring that no exercise in the command training system is disrupted or is of low quality or run by stereotype. Naturally the majority of the officers in the regiment are excellent methodologists.

And I could name other regiments where professional and specifically methodological training for officers is operating in such a way that the level of their skills is increasing with the demands of the times. Their experience is now being studied. But there are still so-called choke points in officer training. For example, here is what a group of experts from the military training directorate who had inspected the state of professional training for officers in a number of subunits in the Zaporozhye Guards Tank Division ran up

against. The plan of instructor methodological, demonstration and other exercises with officers had been completed. At the same time, during the inspection several of the officers demonstrated that they were unable to organize training properly. This is especially true in the case of officers at the platoon and company level.

Naturally every specific case was analyzed and measures were taken to eliminate the deficiencies. But this gave the officers of our directorate something to think about. While working in the unit, they could not only see that there were few things that were new and advanced in the work methods of subunit commanders: they also noticed that there was a lot of work to do to arm those lagging behind with this experience. There was still a lot that could be done on that level.

For example, the same Chertkov Regiment skillfully combines tactical issues with marksmanship, technical and engineer training. They have eliminated the former method of simulating "enemy" actions at exercises. This task is now entrusted to the best trained, energetic, original-thinking officers who can incite the commanders of the opposing subunits to display initiative and creativity. This method could accelerate military training and make it closer to real battle. However this method is still being introduced slowly. And it is being introduced through the advice of experts from our directorate who worked in the regiment.

This was specifically discussed at a recent meeting of the directorate's communists. Each was asked, "What specifically can be done to put into practice the new, advanced methods that were developed in the restructuring process through the creativity of the best methodologists?" Unfortunately this question put some of them in a difficult position.

There is also still a lot to do to improve planning. As is known, every exercise, including command exercises, begins with the development of a plan that is clear and coordinated. The plan is aimed at totally and qualitatively accomplishing the military training program. What lessons did the last training year provide in this regard?

Practice shows that an energetic plan is most often not transformed into energetic actions when the plan has not considered how it should develop and does not consider a whole gamut of issues that the subunit, unit and major unit have to resolve at a given stage. For example, this explains to a degree why an inspection even found cases of deceit. The plan contained notes about the training and firing, but there were times when the inspection showed that none of this had happened. When they began to delve into the reasons, they were told that the plans were beyond the capabilities of subunits and did not consider the real capabilities of those who had to carry them out.

As experience proves, unit commanders and staffs should focus special attention on planning military and political training at battalion and company level. Numerous inspections show that there are many officers at this level who cannot distinguish the basic elements in the training process, especially in their own work. A company commander who is often not even familiar with the program requirements and who cannot imagine what measures and how much

time the battalion and regimental commanders and staffs have planned for, which activities in the subunit will be run by service chiefs and chiefs of arms of service and how training sites will be distributed then starts working to develop the schedule. Senior chiefs and staffs do not have the right to overlook this kind of error.

We must put special attention on planning discipline. By this I primarily mean making control over observing the development sequence more strict. Unfortunately one still runs into people who have not mastered the basics of military science. There are still platoons and companies where issues of military coordination are not developed as they should be and where personnel are already accustomed to regimental exercises. What this can lead to is obvious from the following example. We found this during a tactical exercises for one of the units in the Ural-Lvov guards Volunteer Tank Division imeni Marshal of the Soviet Union R. Ya. Malinovskiy. Tanks were moving through the defensive formation of the defending motor riflemen. And several soldiers became frightened and lost their heads. It turned out that these soldiers had not experienced tank test runs during training exercises and had then been placed in the most active sector in the training battle.

Yes, conditions at training must be as close as possible to battle conditions. But this must be done intelligently. And this is not the last step in managing the military training of the Group of Forces. Issues associated with the professional training of exercise directors, to include regimental exercise directors, demand our constant attention. And this is important because there are commanders at the regimental and division level who have just recently moved into those positions and who need help. One of the most important reserves for accelerating military training and one that the directorate officers still have to put into effect is strengthening and improving work specifically with these commanders.

The intensity of the training process, its rhythm and quality are unthinkable without the skillful use of the material-technical training base. The Proskurov Motorized Rifle Regiment has amassed a lot of positive experience in this area. Exercise and training assets here are positioned so that people do not have to waste time changing their training areas. Training complexes allow one to develop issues simultaneously in several training areas. For example, the regiment has positioned in the artillery training area trainers for loader-operator exercises and infantry fighting vehicles for mechanic-drivers. As a result, after several joint training sessions specialists acquire the mutual support skills that are needed in battle. In addition, they do not lose time in moving even when several exercises both in marksmanship and driving have been planned for the subunit on the same day. In short, the Proskurov's training base has a double reserve of strength, if it can be expressed in that way. For example, the marksmanship range in the artillery training ground has so many targets that if some go out of action, others immediately begin to operate.

However here is something that is alarming. The experience of the Proskurov units has gotten down to regimental level, but below that they still have a long way to go with the propaganda work. Here is a good example. During an inspection, the company which Senior Lieutenant V. Starikov commands went out

to fire. But firing had to be cancelled after the senior officer from the Military Training Directorate, Lieutenant Colonel A. Chumazov, inspected the target range. The targets were closer than they were suppose to be, the target quality was minimal and their very placement did not correspond to any kind of tactical situation. The tankers needed help in re-equipping the target range.

There are still a lot of time and assets that are wasted because not all units are concerned about developing a so-called near-barracks training base. There are times when there is no justification for subunits relying on going out to training centers for days, especially at the beginning of the training year. There is no reason why individual training for soldiers and training with officers, warrant officers and sergeants and at squad, crew and team levels cannot be conducted near the barracks at specially equipped areas. This problem is also being resolved at this time.

It is also disturbing that there are locations where training sites are being exploited until they, as the saying goes, wear away and little attention is being focused on improving them. There is a training center which one division uses that provides a good example of this. For two years in a row this division won the Challenge Red Banner from the Ground Forces Military Council. Demonstration exercises are constantly designed around this division. And they exploited this to the point that this year the division was not able to support the training process totally in all of its subunits. One thing went out of operation, then another... And they were not repaired on time and in accordance with any schedule.

Officers in the Group of Forces Military Training Directorate see this as their fault. A lot of effort is now being directed toward helping that division. But this kind of rush work in preparing the training base could have been avoided.

Quite often the troops get simulators that do not meet the requirements of the times. Take the simulator for tank gunners, for example. The work sequence on the simulator does not conform to the technological process that the gunner follows on the tank weapon. Or take the "rocking horse trainer" [vehicle movement simulator for training in SA firing] for driver-mechanics. One can only acquire the basic skills on that simulator. As it turns out, it is good for training subunits, but a cinematic trainer is needed for units and for integrated training involving trained driver-mechanics. Yet there are still not enough such trainers. And the servicing training that we have for these experts is centralized. It is a difficult job and people in units are not always able to cope with it.

In short, there is a lot of work ahead of us. And a lot will depend on the ability of commanders, political agencies and staffs to make military training the real main element that determines the life of every military collective. This, of course, includes the collective from the Group of Forces Military Training Directorate. To achieve this, we have to work in a modern manner.

12511
CSO: 1801/88

ARMED FORCES

BELORUSSIAN CONFERENCE ON MILITARY PATRIOTIC TRAINING

Minsk SOVETSKAYA BELORUSSIYA in Russian 19 Sep 86 p 1

[BELTA report: "Indoctrinate Patriots of the Motherland"]

[Text] Questions of military-patriotic indoctrination of young people and preparing them for service in the ranks of the Soviet Army were discussed at a conference held on 17 September. Participating in the conference were workers of party and soviet bodies, public organizations, republic military commissariats, leaders of the ministries and departments, and representatives of the Belorussian Military District command.

The conference participants were addressed by N.N. Slyunkov, CPSU Central Committee candidate member and first secretary of the Belorussian Communist Party Central Committee.

It was emphasized at the conference that the Communist Party and Soviet government attach vast importance to improving the entire system of communist indoctrination of people. A component part of it is indoctrinating young people in the spirit of Soviet patriotism and socialist internationalism. The world outlook and moral makeup of a young person, including an inductee, are taking shape in a situation of a more intense ideological struggle between two social systems. This requires stepping up ideological training in every possible way and active opposition to bourgeois ideology. The increased degree of technical equipment of the Army and the tension of everyday service life require a high level of general educational, special, and physical training of tomorrow's soldier. In this connection, schools, vocational and technical schools, VUZes, Komsomol and DOSAAF organizations, and military commissariats are faced with great tasks.

Participating in discussion of the questions raised were Col Gen V.M. Shuralev, Belorussian Military District commander; Lt Gen A.N. Kolinichenko, Belorussian Military District Military Council member and chief of the Political Directorate; L.K. Sukhnat, the republic's minister of education; V.L. Verkhovets, chairman of the BSSR State Committee for Vocational and Technical Education; A.P. Khandogin, Central Committee secretary of the Belorussian Komsomol; Maj Gen A.M. Yezhak, military commissar of the Gomel Oblast; and others.

Comrades M.V. Kovalev, G.G. Bartoshevich, V.A. Pechennikov, and V.I. Goncharik participated in the conference's work.

ARMED FORCES

MAR TOLUBKO REFLECTS ON OFFICER'S SENSE OF RESPONSIBILITY

Moscow KRASNAYA ZVEZDA in Russian 12 Nov 86 p 2

[Article by Chief Marshal of Artillery V. Tolubko: "Loyalty to Duty". First three paragraphs are source introduction.]

[Text] Chief Marshal of Artillery Vladimir Fedorovich Tolubko began military service in 1932. He graduated from an armored school and the RKKA [Workers' and Peasants' Red Army] Military Academy of Mechanization and Motorization. With the start of the Great Patriotic War, he participated actively in the fighting, serving in various positions. He ended the war as chief of a corps headquarters operations branch.

After the war, V.F. Tolubko completed the Military Academy of the USSR Armed Forces General Staff imeni K.Ye. Voroshilov; commanded a division, formation, and district; and for many years was commander in chief of the Strategic Rocket Forces and deputy minister of defense. Today he devotes all his knowledge and experience to the cause of strengthening the country's defense.

The military labor of Chief Marshal of Artillery V.F. Tolubko has been noted by the title of Hero of Socialist Labor, five Orders of Lenin, and many other high awards.

Meetings with friends from the front are always welcome and stirring occasions. They sit beside me, their hair turned gray, many of them marked by bullets and shrapnel, but in my imagination I picture them as these dear people were during their war-scorched youth. I see retired Col Nikolay Ivanovich Baryshev as a young, energetic officer--deputy chief of the headquarters operations branch of our Guards mechanized corps. We liked him for his encouraging nature, comradely kindheartedness, straightforwardness, and especially for the fact that he was active not only in developing operations but also in combat.

One day, heading by tank to a brigade where he was to explain a combat mission, Gds Maj Baryshev encountered a retreating enemy column. Adhering to his favorite rule of hitting the enemy under any circumstances, Baryshev gave the command and the tank burst forward, smashing the motor vehicles with fire and tracks and destroying the confused Hitlerites. Unexpectedly, Baryshev's tank also caught fire from the burning enemy equipment, but he continued to

direct the gunner to more and more new targets. Only when there was a danger of explosion did he order the driver-mechanic to drive the tank to a nearby small hill, where the tankers put out the flames.

Before this there was an instance when Baryshev, changing from a crippled KV tank to a T-34, in the dust of the battle ended up in a deep crater. The engine stalled. The crew of a fascist tank tried to tow the T-34 away. But using the movement, Baryshev started the tank; in the end it was the fascist tank and not the Soviet tank that ended up captured and was delivered to our troops.

He was burned six times in tanks. He was contused and wounded twice. His combat feats have been noted by eight orders. Of course, it is not just a matter of decorations.

"It is my first and foremost duty to smash the enemy," he said fairly often.

Thus, he expressed the thoughts of each of us, for no matter how we staff officers differed from one another, we all were united by this great sense--a sense of duty. Above all, we saw it as our duty to defeat the enemy.

We brought our knowledge and experience to the units. I recall we developed a pamphlet with recommendations on waging battle by tank crews. It was distributed to the subunits and played its role. But can even the best pamphlet or any other methods aid really replace an officer's personal contact with people? I am convinced that the personal example of officers, including corps staff officers, greatly influenced soldiers and motivated them to fight competently, boldly, and selflessly. This is what military duty and the military oath is all about.

Military duty.... The duty of a defender of the motherland.... For us officers these words are filled with a special meaning, for to defend the motherland is not only a constitutional duty for us, but also a profession, a way of life.

I recall the feats of my fellow-servicemen at the front and the thought occurs to me that we, above all, understood duty to be a realized necessity. Yes, it is precisely an ideological conviction and a deep awareness by man of the rightness of the cause for which he is fighting, for the sake of which he works and lives, which motivates him to act this way and no other at moments of moral choice and even to sacrifice himself--sacrifice in the name of a lofty goal. And for us there was no higher goal than the happiness and security of the motherland.

In this sense, military duty, an officer's duty assumes exceptional responsibility: a responsibility to people and to the motherland for their reliable armed protection. Duty is the principal landmark in our service. It disciplines an officer, mobilizes him to exemplary fulfillment of daily duties. "I must!"--an officer tells himself and, obeying the order, goes to serve where he is needed most. "I must!"--and he shares all the rigors of military labor with his subordinates. "I must!"--and he finds the right solution to the most complex situation. It seems to me that this short word

filled with energy best expresses the essence of what we call duty. A poet once put it quite well:

It is given like an order.
Death is no obstacle for it....
And life is no consideration.
If it is said 'I must!'

How many officers I know whose life is commensurable with these words.

...Subunit commander Maj V. Smirnov was unexpectedly ordered to take over a similar position in another unit located many hundreds of kilometers from his former duty station. He had to part with the subunit to which he had given considerable efforts to bring it up to the level of outstanding. A unit lagging behind would take its place. His wife had to leave her favorite job, his daughter had to change schools, and in general they had to leave an area where they felt right at home. But...he had to! Service requires it. That is what duty is all about. And Communist Smirnov departs.

Arriving at his new duty station, he thoroughly studied the state of affairs there. Identifying the principal problems, he sets to work. He does so, as always, fervently, aggressively, and purposefully. He labored conscientiously himself and motivated his subordinates to do the same. He skillfully relied on Communists and Komsomol members. As a result, 1 year later the subunit became one of the best in the unit.

This example is generally typical for our Army life. Regardless of where an officer is called upon to serve, regardless of what position he is assigned, he serves at the call of duty and conscience. He knows that his attitude, diligence, conscientiousness are the peace of mind of the country and the happy life of people. And the position of some officers one encounters, although infrequently, seems truly incomprehensible; they try to select duty in a location that is a little warmer, a little more comfortable. One may ask, is such a person worthy of the officer rank at all?

In the Armed Forces, just as throughout the country, now there is a process of restructuring underway. I personally see the essence of this process, as it applies to us as soldiers, as increasing the sense of duty and the sense of responsibility of every person--from soldier to marshal--for fulfillment of his duties. During my years of service I have repeatedly been convinced that an officer with a developed sense of duty asserts his authority more quickly in the eyes of subordinates, more easily withstands difficulties, and invariably achieves success.

An officer's duty is a multifaceted concept. One of the most important facets is ceaseless training throughout one's career, high professional training. In particular, an excellent knowledge of combat equipment and weapons and the ability to employ them effectively in combat. Our primary goal in the service--fulfillment of the combat mission--directly depends on this.

The desire of officers to learn all types of equipment existing in subunits, to master the duties of the position one step higher than that held, and to

participate in innovative and inventive work merits approval. This and many other things is in the spirit of the times and serves the cause of increasing combat readiness.

A keen sense of duty attests to an officer's ideological maturity. This sense determines his acts and attitude toward coworkers and is expressed in the ability to keep one's work, in his obligatoriness, efficiency, initiative.... All this has, I would note, a most direct relation to the restructuring taking place in our work today. As M.S. Gorbachev noted, with restructuring, everyone must begin with himself by determining his civic position, by stepping up his political and labor activities, and increasing responsibility for what is assigned to him.

A most important facet of an officer's duty is concern for subordinates: concern for their training, education, and forming in them high moral fighting qualities. It must be noted that concern for subordinates was considered at the front as one of the integral and most noble traits of an officer, regardless of his position. Our corps commander, Lt Gen Trofim Ivanovich Tanaschishin, gave us a brilliant example of such concern. No matter how the situation unfolded, he always found time to visit soldiers of the units and subunits. He was interested in their training, duty, and everyday life; commanders who did not show proper concern for subordinates were held strictly accountable. He also died, fatally wounded by shrapnel, at the forward edge of the battle area where it was most difficult of all for the men.

Frontline soldiers carry this trait--concern for people--throughout their career. During the postwar years I had the opportunity to serve with Ivan Fedorovich Osminin for several years. I knew him as an officer for whom concern for subordinates was a first and foremost duty. Noting this trait of his in a routine performance report, one day I became interested in what he was like at the front. I read these lines in the personal combat record of platoon commander Lt I. Osminin: "During his tenure in the battalion, comrade Osminin has shown himself to be a disciplined, competent, cultured, and polite officer. He possesses initiative and is demanding of himself and subordinates... He daily demonstrates concern for his subordinates...."

Ivan Fedorovich did not lose these qualities when he became a general.

It is gratifying that today the vast majority of officers also consider concern for people to be an essential part of their official duty.

I must mention Col Gen Yuriy Alekseyevich Yashin, with whom I had the fortune of serving. "A man of duty," people say of him. By this they also mean the very high professional training of Yuriy Alekseyevich and his overall and military culture, punctuality, and strict but fair exactingness... And everyone who knows him invariably notes: throughout his entire career he has had a sense of great respect for people, for subordinates.

Yes, the majority of our officers devote their talent, energy of the mind, and warmth of their hearts in full to the sacred cause of selfless fulfillment of duty. But, unfortunately, there are also people in our officer corps who are capable of giving their personal interests priority.

Col V. Gomozov was discharged into the reserve for serious dereliction of duty, although he was young enough to continue to serve for quite some time. What was the reason? Gomozov explained: "That is how circumstances took shape." But in fact, the reason was that this officer placed his own well-being above the interests of the service.

He who has a developed sense of duty persistently searches for and finds the correct solution under any circumstances. By way of illustration, was it really easy for officer Smirnov when he was assigned a subunit which was lagging behind? But he did not retreat in the face of difficulties. He worked honestly and conscientiously. He was also promoted in rank recently. This is important, of course. But, as he says, there is no greater satisfaction than the joy of serving by truth and by conscience. Let each of us do everything in order to experience such joy in full! The joy of honestly fulfilled duty!

12567
CSO: 1801/52

ARMED FORCES

LT COL ZIYEMINSH DISCUSSES CADRE WORK

Moscow KRASNAYA ZVEZDA in Russian 19 Oct 86 p 2

[Article by Lt Col Ziyeminsh, KRASNAYA ZVEZDA correspondent: "Take It Upon Onself--Cadre Work: Trust and Exactingness"]

[Excerpts] Of course, Capt N. Popov was quite flattered by the new duty assignment. Yesterday he was commanding a company; now he was commander of a military construction detachment.

"Such things don't happen very often in our experience," Capt Popov was told by an officer of the personnel office where he was invited for a talk before the assignment.

This should be understood in this way: He, Capt Popov, was being given a special trust, being recommended to such a responsible position directly from the company commanders. They say, be daring and creative--there are broad opportunities open to show your worth. He, Capt Popov, should give a fresh look at what is keeping the detachment from eliminating its backwardness, which had become chronic. If necessary, break down unfit traditions.

It is now hard for me to picture that happy feeling of the young officer, because we met after his letter to KRASNAYA ZVEZDA. Unfortunately, it did not talk about the problems and troubles of a detachment commander or about the development of the collective. It was about the total collapse of once bright prospects. By the time of conversation, the party committee session had already been held. Communist Popov had received a strict punishment. The order had been issued returning him to duty in his former position--company commander. What chasm was there between these two days in the life of the young officer? How could a rift in his reputation form in such a short period of time? Capt Popov himself also probably sought an answer to these questions when he wrote to the editor.

He took over as commander of the military construction detachment with kind words. There was much in the life of the collective and in the very mood of the people that had to be changed. Everyone seemed to know about the shortcomings. There was talk at party meetings, and businesslike suggestions were made. But when the routine work began, everything remained as before;

there were the same rush jobs and rush work. And what is most distressing, the people, it seemed, put up with such a situation.

It must be said that many hoped for improvements when Capt N. Popov took over as detachment commander. At his first official meeting he made generous "overtures"--it was high time to put an end to the "confused" work. Since they were working hard but getting no results, that means they were working incorrectly. Henceforth we will work correctly.

But it is one thing to say and another thing to put these words into concrete organizational, educational measures. He clearly did not have enough experience in this. But the main trouble, if you will, was that Capt Popov assumed that there was no time to gain this experience and to "work" on authority. From the very start he had to establish everything his own way and decisively sweep away any doubts.

Inwardly, the detachment commander probably understood that the reorganization required well thought-out actions for the long term. But for some reason it seemed to him that high results were expected of him almost immediately. Capt Popov wanted with all his strength to prove that he could work like others could not. In just a few weeks everyone would say: The detachment has really improved since the new commander came.

Unfortunately, it did not improve. On the contrary, some of the previously existing problems became more visible. Disregarding existing legislation, overtime work was practiced, and days off and holidays were taken. Breaches of military and labor discipline became more frequent in the collective.

The causes for such a situation are now known. To implement his plans, Capt Popov chose an unfit style of leadership, long ago condemned at all levels. Here is its essence. Things were not improving as quickly in the detachment as the commander wanted. So he would not be reproached for indecisiveness, for all I know, he began emphasizing punishments. He figured: If an officer does not have a rebuke or reprimand, he would seem to be outside of command influence. At the same time, he made the concerns and needs of subordinates secondary.

The detachment commander would go to the construction site at the end of the work day and shake his head in dissatisfaction at the poor quality of work. They would say to him: Why are you surprised? The installation still does not have a rest area, and the transportation for taking personnel to the unit is late every evening. There is nothing to keep drinking water in at the site. He should have helped and seriously looked into these by no means minor everyday problems, but he began to reproach them for demonstrating "insufficient" awareness.

And it turned out that instead of activating the human factor in the collective, it was suppressed. Other imaginary attributes of command authority also went to the young officer's head--soon he began building a dacha, using the labor of military construction workers. This story ended just as it had to end--the officer was relieved of his duties.

Now, of course, one can reproach certain commanders and chiefs, including the former chief of the construction organization, Col V. Parygin, who did not at one time properly understand Capt Popov's nature. They tried, perhaps, not to notice the shortcomings in his work and were in a rush to promote him. Later they regretted that they approached the evaluation of his activities in a one-sided manner.

An attentive approach to the selection and assignment of personnel is especially important today when our party is following a firm course of accelerating social and economic development of the country and scientific and technical progress, and of a persistent strengthening of discipline and order in everything. There have always been a number of merits for youth--boldness of thought, innovativeness, healthy ambition, dislike of routine and conservatism.

Youth and responsibility are concepts which go side by side. One does not have to look far for examples confirming this. They also exist in the adjacent construction organization.

Nikolay Vasilyevich Grechukha, the same rank as Capt Popov and even younger, headed a military construction detachment. The command "legacy" fell to his lot no better than to Capt Popov. In some ways even worse. Thus, for example, it turned out that the detachment commander's deputies did not have any experience, being in the position for less than a full year. The secretary of the party organization was a lieutenant.

The deputy commander for political affairs, the chief of staff, and the secretaries of the party and Komsomol organizations got together for his "military council," as Nikolay Vasilyevich later jokingly tells it. Everyone spoke his opinion. Such and such: there was much disorganization in the collective and deviations from the requirements of military regulations. Indifference and passivity were observed in many soldiers. Hence, it was said, all the troubles.

A fresh opinion and true evaluation of the events and facts prompted the new commander: what was said was important, but fundamentally does not solve the problem. Indifference was not the cause, but the result of some serious flaws in educational work.

Problems, one more complex than the other, faced the new detachment commander. And he did not count on quick success. He started, as they say, from the beginning: with the barracks, dining hall, and club facilities. These projects were still not ready, but he already saw plans for a shooting gallery and a stadium. He even set a goal that he would not leave the detachment until he did everything he planned.

Everything did not always go smoothly. At times difficult situations arose when the commander was faced with a difficult choice. "The plan is going without a hitch," he was told, "but the detachment is engaged in something unknown." He had in mind the camp facilities. But immediate interests did not overshadow long-term goals in Grechukha's activities....

"A strong-willed, decisive officer; knows general military regulations well and strictly carries them out. He makes competent decisions and sees them through to the end. He possesses good organizational capabilities and skillfully relies on party and Komsomol organizations in his work...." These lines are from a written recommendation on Nikolay Vasiliyevich Grechukha. They were written on the occasion of submitting him for a higher position.

Capt N. Popov's letter to KRASNAYA ZVEZDA contained these words: "Before being assigned to the position of commander of the military construction detachment I had a request: If I do not cope with my assigned duties, release me without party and disciplinary proceedings being instituted, and assign me to a position according to the recommendation--deputy detachment commander." In the context of the letter this sounded something like: I warned you. Was the trust unjustified? What is to be done, it did not turn out....

The officer's logic, however, is strange. When he was assigned to a high position, passing an intermediate step, there were not regrets. Now, when he is relieved, he sounds the alarm: Why was I demoted two steps? But, you see, a higher position assumes a higher responsibility, reliable knowledge, and a different approach to the job. Did his superiors not help and prompt him on time? Possibly. But you get the impression that Capt Popov at one time decided that the higher the position, the easier the work. Give the order, and that's it. That did him a bad turn.

The fates of officers assigned to higher positions develop differently. Much depends not only on professional knowledge, but also on a readiness to master the work style which our strict time requires, a time of bold decisions and energetic actions.

12567

CSO: 1801/52

ARMED FORCES

COL VASILYEV DISCUSSES CADRE WORK

Moscow KRASNAYA ZVEZDA in Russian 22 Oct 86 p 2

[Article by Col V. Vasilyev, military pilot first-class, of the Red Banner Central Asian Military District under the rubric "Cadre Work: Trust and Exactingness": "Help, Not Tutelage"]

[Excerpts] Interference jammed the display screen at the command post. During those several seconds, while the specialists were tuning it out, the air situation changed--new targets were marked by flickering dots along the edge of the screen.

Earlier, "enemy" aircraft had already repeatedly tried to attack the installation defended by fighters. But they were intercepted at distant lines by military pilots first-class Lt Col A. Merkulov, Maj I. Udovichenko, and Maj V. Pryanichnikov.

Here was another attack. Who should be assigned to intercept the targets? Having assessed the situation, Lt Col V. Peredera decided to launch military pilot second-class Capt A. Gorshkov against the high-speed target flying at low altitude and military pilot third-class Lt D. Kozin to intercept the "enemy" at medium altitude.

"Are you deliberately taking a chance, Yevgeniy Timofeyevich?" the inspector from district headquarters asked.

One could understand the inspector. The regiment, having carried out the main mission, had already ensured itself high marks for the exercise. Should young pilots now be sent on an intercept? If unsuccessful, these flights could become a "fly in the ointment." Moreover, at the time the decision was made there were more experienced pilots in the air. It would not have been hard to retarget them.

Nevertheless, Lt Col Peredera repeated:

"Capt Gorshkov and Lt Kozin will do the intercept."

Later, when the radar stations detected several more "enemy" aircraft, other young pilots from the regiment were sent to duel them.

This is how Lt Col Peredera explained his decision:

"Young people are dying to test themselves in battle, and there is no reason not to trust them. Where, if not in the skies over the test range in a situation most closely approximating actual combat, can the lieutenants temper their character. The commanders trained them to be fighter pilots and taught them independence in the air. I am confident that the young officers will not let their superiors down."

Indeed, the lieutenants handled the mission with honor.

Analyzing the state of affairs in the aviation regiment, one comes to the conclusion that it is not by chance that they trust the young officers to carry out a difficult mission here. I will explain why.

Professional maturity does not come by itself. It is the result of persistent labor demanding much perseverance and purposefulness and a total exertion of spiritual and physical strength. At the same time, the more attention commanders, political workers, and senior colleagues give a young officer, the quicker he acquires the qualities of an aerial warrior. I see this involvement as educating young people by personal example, by trust combined with exactingness and supervision. This is precisely how they do it in the fighter regiment in which military pilot first-class Lt Col Ye. Peredera, holder of the Red Banner Order, serves.

One must note that they did not find the correct style in working with young pilots immediately. One day, attending a summation of results for the month in one of the squadrons of the regiment, I paid attention to the fact that the lieutenants were subjected to, I would say, merciless criticism even for minor "rough edges" in flying techniques and inaccurate answers at classes. At the same time, the shortcomings of class-rated pilots were mentioned only in passing. Needless to say, the lieutenants, seeing such unfairness, were very upset.

Of course, it is absolutely necessary to point out the shortcomings and various mistakes in flights and duty so a person knows what he should work on first of all and what matters of official activities to give more attention. But this must be done in such a way that a subordinate does not lose heart after talking with his commander, but, on the contrary, has a desire to begin eliminating the identified shortcomings. They do not object to fair, strict exactingness, but sensitivity and a commander's trust are of great educational value.

I told the squadron commander about this. He was even offended:

"How am I supposed to treat them, like kindergarten children? After all, they were taught everything in school...."

Unfortunately, other experienced pilots also adhered to the same opinion. I felt that command personnel in the subunit had a vague idea of their role in educating the young pilots.

They had to be reminded that the growth process of young cadres and their political and businesslike qualities depend not only on the exactingness of more experienced comrades, but also on their support and trust. During the first months in a combat unit, duty seems overly strenuous to the lieutenants.

Finding themselves in a new environment, the lieutenants begin carrying out complex duties and are given independence, which they did not have in the military school. They are reminded about responsibilities more often. Young people burn with a desire to prove themselves by deed. However, desires sometimes do not coincide with opportunities. What is more, this commendable aspiration often turns out in mistakes. That is why the young officers, in addition to maximum exertion of personal efforts and energy in combat training and duty, require assistance, attention, and a commander's concern.

That conversation in the squadron went beyond one subunit. The question of how to train young officer cadres was placed on the agenda of the regimental party meeting. A fundamental exchange of opinions left no one indifferent. Specific measures to improve the quality of combat training of lieutenants were introduced by Lt Col A. Vakuresko, Maj N. Atkin, and Capt V. Krukovskiy. Then the communists decided that a first-class pilot would sponsor each young officer.

Of course, this did not free flight commanders and other officials of the regiment from the painstaking individual work with the recent flight school graduates, but only helped to increase its effectiveness and more rapidly eliminate the "rough edges" in development of the young officers. Soon the desired results appeared.

Capt A. Semenov, a senior pilot and master of combat, sponsored Lt I. Sivak, who had a reputation as a typical "average" pilot. Conducting additional classes and training sessions with the young officer, Capt Semenov did not explain the instructions to the pilot each time, but explained to him in detail how the combat aircraft behaves during each change of altitude in the air, how this is perceived by the pilot, what must be done to maintain desired flight conditions, and how to eliminate mistakes competently. He cited examples from his own experience. Then he practiced that exercise with the lieutenant on the simulator. He made the first "flight" himself. The "flight" critique was conducted in a relaxed atmosphere with respect for the attitude of the junior officer.

Many years of flying experience convince me that such work with a young officer is a substantial help to the work of the flight commander. And it is not surprising that now Lt Sivak carries out the combat training missions successfully.

The rest of the experienced pilots also treated their party assignment conscientiously. The regimental party committee is constantly monitoring this important matter and holds strictly accountable those who relax their work with the junior officers. Incidentally, today the regiment decisively rejects inertness, lack of initiative, and satisfaction with what has been achieved.

The opinion may arise that the newcomers in the unit are being excessively watched over and being brought up, so to speak, in hothouse conditions. Nothing of the sort. They are also held strictly accountable for errors in flying techniques. But the lieutenants are making them less and less often. This is the result of the preliminary work of the commanders and senior comrades with them. They teach the young people in short exercises and training sessions and in the course of theoretical classes. And they maintain the businesslike initiative of the lieutenants in every way possible.

One day, for example, Lt V. Yemanov, Lt S. Vasin and several other young officers "dared" to doubt a plan put forth by more experienced colleagues for re-equipping the training classrooms, saying, all this is old. They agreed with them and suggested that they back up their initiative with deed.

The classroom for flight preparation was re-equipped in a fairly short period of time. The mockups, electrified stands, diagrams and posters, all made by the lieutenants, substantially enhanced the effectiveness of the training process.

The experience of working with young officers in this aviation regiment has been quite instructive. We are trying to extend it to aviation units of the district. But it is not meeting with support everywhere. There are units where they measure lieutenants as "young and green." That being the case, work with them is turned into tutelage. Young officers are literally not allowed to take a step independently, let alone make their own decisions. I do not doubt that this is precisely the reason that the young pilots in the aviation regiment where military pilot first-class Lt Col Yu. Shatskiy serves up until recently have not shined with success. The district Air Forces military council directed the attention of the unit command authorities to this shortcoming and helped them change their methods of work.

The wings of young military pilots.... Whether they will be strong or not, as experience shows, depends on the commanders and political workers and on the shoulder of a senior comrade being a reliable support for the lieutenants in their professional development and moral and combat growth.

12567

CSO: 1801/52

ARMED FORCES

TRETYAK, GORSHKOV, TOLUBKO ATTEND COMMEMORATION

Moscow KRASNAYA ZVEZDA in Russian 2 Dec 86 p 3

[Article by Major B. Khudoleyev: "Remembering A Military Leader"]

[Text] On 1 December there was an evening at the Central House of the Soviet Army imeni M. V. Frunze. This evening was dedicated to the 90th anniversary of Marshal of the Soviet Union G. K. Zhukov's birth.

The presidium included: Chief of the General Staff of the USSR Armed Forces and First Deputy USSR Minister of Defense Marshal of the Soviet Union S. F. Akhromeyev, First Deputy USSR Minister of Defense General of the Army I. G. Lushev, First Deputy Chief of the Main Political Directorate of the Soviet Army and Navy Admiral A. I. Sorokin and also Chief Marshal of Artillery V. F. Tolubko, Fleet Admiral of the Soviet Union S. G. Gorshkov, marshals of the arms of services, generals, admirals, officers, veterans of the Great Patriotic War, representatives from social organizations and relatives and close friends of G. K. Zhukov.

Deputy USSR Minister of Defense General of the Army Tretyak gave a speech on the life and activities of this outstanding Soviet military leader, fiery patriot and internationalist and four-time Hero of the Soviet Union, G. K. Zhukov. Marshal of Aviation S. I. Rudenko and General of the Army P. N. Lashchenko shared their memories about Georgiy Konstantinovich Zhukov.

People's Artist of the USSR M. A. Ulyanov and the chairman of the Kolkhoz imeni Marshal Zhukov, I. M. Yermakov, appeared at the evening.

12511
CSO: 1801/88

ARMED FORCES

OBITUARY: LT GEN P.I. GALKIN

Moscow KRASNAYA ZVEZDA in Russian 28 Oct 86 p 4

[Obituary on Lt Gen P.I. Galkin]

[Text] Lt Gen Petr Ivanovich Galkin, laureate of the USSR State Prize and assistant chief of communications of the USSR Armed Forces, passed away.

P.I. Galkin was born on 18 September 1923 in the village of Krasnonemetskiy, Balandinskiy Rayon, Saratov Oblast.

After graduating from the military communications school in 1942, he actively participated in fighting against the fascist invaders in the Western and First Belorussian fronts. He became a member of the CPSU in 1944.

In 1955 P.I. Galkin graduated from the Military Signal Academy imeni S.M. Budenny and served in the USSR Ministry of Defense central apparatus. In all sections of which he was in charge, he carried out his official duties honestly and conscientiously and was an exacting leader and kind comrade.

The Motherland highly valued the services of P.I. Galkin, awarding him the October Revolution Order, orders of the Great Patriotic War 1st and 2d Class, three Red Star orders, the order "For Service to the Motherland in the USSR Armed Forces" 3d Class, and many medals.

The blessed memory of Petr Ivanovich Galkin will remain in our hearts forever.

N.F. Shestopalov, A.I. Belov, A.N. Agafonov, K.I. Kobets, A.I. Shumakov, V.I. Sokolov, Ye.A. Shitov, K.N. Trofimov, Yu.A. Pavlov, A.A. Nedin, N.F. Zhilyuk, Yu.I. Ryabinin, V.V. Timofeyev, V.S. Degtyarev, V.P. Ruzayev.

12567

CSO: 1801/52

ARMED FORCES

BRIEFS

OBITUARY: COL A.N. SHAKHOV--The command authority, party committee of the Main Directorate of the USSR Ministry of Defense, friends, and comrades announce with deep sorrow the death of Col Anatoliy Nikolayevich Shakhov, deputy chief of the department and CPSU member since 1956, and express condolences to the relatives and close friends of the deceased. [Text] [Moscow KRASNAYA ZVEZDA in Russian 4 Nov 86 p 4] 12567

OBITUARY: MAJ GEN S.K. ALEKSEYEV--The command authority and party organization of the USSR Ministry of Defense Directorate announce with deep sorrow the death of Maj Gen Sergey Konstantinovich Alekseyev, a CPSU member since 1953, and express condolences to the relatives and close friends of the deceased. [Text] [Moscow KRASNAYA ZVEZDA in Russian 16 Nov 86 p 4] 12567

CSO: 1801/52

GROUND FORCES

T-72 TANK: PREPARATIONS FOR SUMMERTIME USE

Moscow TEKHNIKA I VOORUZHENIYA in Russian No 3, Mar 86 pp 10-11

[Article by Lieutenant Colonel P. Balashov and Captain N. Zinkin: "Preparing the T-72 Tank for Summer Operation"]

[Text] In addition to the regularly scheduled technical servicing (TS-1 or TS-2), preparing tanks for spring and summer operations will also involve supplementary maintenance.

The low-temperature coolant of the engine cooling system is replaced by pure (without mechanical mixtures), fresh water with a ternary additive. In order to drain the low-temperature coolant out of the cooling system, the tank is placed on a platform (horizontally or tilted left), the hatch covers above the fill-point apertures are opened, filler caps on the overflow tank and radiator are unscrewed and the coolant draining cap in the hatch under the engine is removed. The drain valve cap is opened and an end piece with hose (which can be found in the tank's spare parts, tools and accessories kit) is screwed into the valve. In order to drain the coolant totally, at the end of the draining process the radiator is raised on a rack and the starter-generator is used to turn the engine crankshaft for a 3-5 second period without fuel being fed. Then the drain valve cap is screwed on and the hatch under the engine closed.

A ternary additive is used to reduce encrustation and protect components of the cooling system from corrosion. Consisting of 50 grams each of potassium bichromate, sodium nitrite and trisodium phosphate, it is poured in small amounts into 8-10 liters of water, heated to a temperature of 60-80 degrees Celsius and stirred carefully. Water is added until there are 100 liters of solution. Funnels and a sieve are used in filling the system. The overflow tank's aperture must be open while filling the radiator. The process may be speeded up by pouring coolant into the apertures of the radiator and overflow tank simultaneously. For complete fill-up of the cooling system (90 liter capacity), the level of liquid should not be lower than the lower sections of connecting pipes to the radiator and overflow tank. The ternary additive solution is added to the cooling system in its original concentration as required during operation of the tank. The system may also be topped off with pure water, no more than 3-5 liters, as required.

After servicing the cooling system, the rubber seals under the caps and hatches are checked and bad ones replaced. After the filler caps to the radiator and overflow tank are tightened, the "water-antifreeze" switch on the driver's instrument panel is put into the "water" position and the engine is started and allowed to run 1-2 minutes. The level of liquid is checked and more added, if necessary, to fill it. The filler caps and their hatch covers are then closed.

The next operation is flushing the gas-vapor valve and checking its adjustment. The valve is taken apart, residue removed and then it is reassembled. Seals are replaced if necessary. The adjustment of the gas-vapor valve is checked with a PPGU [expansion unknown] device (see TEKHNIKA I VOORUZHENIYE, 1982, No 10).

The hydropneumatic cleaning system (HCS) for observation and sighting instruments is blast-cleaned with compressed air over a 10-15 minute period, with repeated pressing of the valve lever. Pure water is then added to the HCS tank of the driver's observation device (seven liters) and to that of the sighting instruments (2.2 liters).

The arctic (winter) fuel in the engine's fuel supply system is replaced by summer diesel fuel L-0.2 (GOST [All-Union State Standard] 305-82). Prior to replacement, it is necessary to remove residue from the internal fuel tanks -- this is done by draining three-five liters of fuel from the forward tank rack, middle tank rack and left front tank.

Air-priming of the fuel system consists of setting up a summer alignment of air feeds to the air filter and conducting the scheduled air filter servicing. Setting up the summer alignment requires removal of the air intake aperture cover in the engine compartment roof, stowing it with the tank's spare parts, tools and accessories kit and screwing bolts into the frame to which the cover was affixed.

Prior to removing the air filter for servicing, it is cleaned of dust and dirt; compressed air is blasted over the protective grating around the dust separator (and, where accessible, the separator inlet connectors) and exterior of the air filter's grating and frame. Upon removing the air filter, the cover located in the operations kit must immediately be installed to prevent foreign objects and dust from entering the intake manifold.

Air filter maintenance is accomplished using test sets from the Material/Technical Support Set MTS-80 (MTS-172) or with individual units (assembly V.MTS.2-39sb, test set V.MTS.2-40sb).

Those conducting the maintenance should note that the quality of the flushing operation on the cartridges is determined by the weight of the lower cartridge. If it weighs 10,880-10,980 grams or less, then the entire unit will be thoroughly flushed.

During assembly of the air filter, the felt seals that fit on to the rim of the plate-cover and cartridge caps must first be lubricated with ONaKa-3/10-2 [expansion unknown]. The cartridges must be installed with the inscriptions

"Lower," "Middle," and "Upper" bolted on the side facing the engine supercharger. The cover plate must be joined tightly to the air filter cap, and the nuts screwed evenly, without any deformation in the cover-plate journals. The cover plate should cover all the central strips on the cap and provide a reliable seating over the entire perimeter of the felt seal.

The air filter warning indicator is then checked by fitting rubber tubing (from the spare parts, tools and accessories kit) on to the warning indicator's connecting pipe to the atmosphere so that it covers the radial apertures on the pipe (first making sure the tubing's inside surface is clean!). A small amount of excess pressure then applied in the tubing should cause the "probable error" light on the driver's instrument panel to come on. Following these procedures the engine is again started and allowed to run for 10-15 minutes with the crankshaft rotating at 1500-1600 rpm. This is done to eliminate winter fuel residue from the fuel lines and filters. Hermetic sealing of the air supply lines is checked at the same time.

The system for protecting against weapons of mass destruction is then checked. Filter-absorber efficiency and hermetic sealing of the air feed lines of the filter ventilation system are monitored. All hatches are closed and the blower is turned on. Protective masks are first checked, then put on. Over the course of a minute, a rag moistened in ethyl mercaptan is held by the blower vent's protective armor. The absence of its smell in the tank will show that the filter-absorber is functioning properly and that the air feed lines of the filter ventilation system are hermetically sealed. The overall time that air is pumped through the filter should not exceed 10 minutes.

The charge on Fire Prevention System (FPS) cylinders and portable fire extinguishers is then checked and the FPS electrical circuitry is monitored. The charge level in the cylinders is determined by routine weighing. The difference between the actual weight and the value stenciled on the cylinder may not exceed 10 grams. Cylinders and fire extinguishers should be charged or replaced when necessary.

The functioning of FPS electrical circuitry is checked in the following manner. Power is shut off and the transmission cover opened. Two blower plates are removed. The coupling nuts with cap electrical wiring on FPS cylinders No 1 and 2 in the engine compartment are unscrewed and removed. The same is done on cylinder No 3 in the fighting compartment. Air cylinder valves are opened and No 2 cable used to connect device PK11-1 to the plug and socket ShB [circuit] of unit B11-5-2S1. All switches on panel P11-5 and apparatus PK11-1 are placed in their original position. The FPS/OPVT [OPVT -- equipment for driving tank underwater] switch on panel P11-5 is then set to the FPS position, switch TS(1-10)/TS(11-15) on apparatus PK11-1 is positioned to TS(1-10), switches 1B, 2B and 3B set to "off," and switch TS/FPS set to the "0" position. [FPS -- Fire Prevention System, TS -- temperature-sensing element].

If power is now supplied, lamps 1B, 2B and 3B will remain unlit to show that the electrical circuitry in the FPS cylinder cartridges is functioning

properly. With the battery disconnected and switches 1B, 2B and 3B of PK11-1 turned on, the corresponding lamps should burn dimly, indicating proper electrical functioning.

Apparatus PK11-1 is checked by depressing and releasing the "test" button on the instrument -- the test light should come on and then extinguish after 5-7 seconds.

To check temperature-sensing element TS1, the TS/FPS switch is set to "1" and the "test" button depressed and released. The test lamp will come on, then extinguish after 2-7 seconds. Lamp 1B30 of apparatus PK11-1 will then light up and extinguish in 0.5-3 seconds. Lamp 30 on panel P11-5 will come on and lamp 1B go out. A signal from the engine shut-down mechanism will appear, then disappear after 0.5-3 seconds. Fifteen seconds after lamp 30 of panel P11-5 comes on, the "reset" button on the panel is depressed and released. This should result in lamp P0 on panel P11-5 being extinguished and the blower being activated.

Temperature-sensing elements TS2-TS4 are checked in the same manner, with switch TS/FPS of apparatus PK11-1 set to positions "2," "3," and "4." When the switch is set to the "2" and "3" positions and the test button depressed, lamps 2BPO and 3BPO of apparatus PK11-1 light up, then extinguish after 0.5-3 seconds; lamps 2B and 3B of panel P11-5 go out. But when the switch is set to the "4" position and the test button depressed, the P0 lamp of panel P11-5 comes on and the blower stops for the period that the lamp is lit. From this point on the system operates as it did for checking TS1.

If power is now disconnected, lamps 1B, 2B and 3B on the panel will light up dimly.

The check of temperature-sensing element TS6 requires switch TS(1-10)/TS(1-15)[sic] to be set to the TS(1-10) position and the TS/FPS switch on apparatus PK11-1 to "6." When the test button is depressed and released, the test lamp comes on, then extinguishes after 2-7 seconds. The sensing element is operating correctly if lamp 1B30 on PK11-1 then comes on and extinguishes after 0.5-3 seconds, if lamp 30 on P11-5 comes on and 1B extinguishes, and if the engine shut-down signal first appears, then disappears in 0.5-3 seconds.

Fifteen seconds after lamp 30 on panel P11-5 lights, the "reset" button on the panel should be depressed and released. The lamp will go out and the blower will be activated.

Temperature-sensing elements TS7-TS10 are checked in like manner, setting the TS/FPS switch of apparatus P11-1 [sic] to the "7" through "10" positions. Thus, moving the switch to positions "7," then "8," and depressing the test button results in lamp 2B30 (3B30) of apparatus PK11-1 lighting up and then going out after 0.5-3 seconds, and lamp 2B (3B) on panel P11-5 going out. But setting the switch to positions "9" and "10" and depressing the test button results in lamp 30 of P11-5 lighting up, while the blower stops for the time it is lit. The rest of the check is done in the same manner as for sensing element TS6.

If the blower and batteries are disconnected, then power again turned on, lamps 1B, 2B and 3B on the panel should be dimly lit.

Temperature-sensing elements TS11-TS15 are checked through the same sequence, except that the switch is set to the position TS(11-15) and the TS/FPS switch is set sequentially to positions "6" through "10."

After checking the electrical circuitry of the FPS system, the blower and power must be turned off, apparatus P11-1 must be disconnected from unit B11-5-2S1, and the coupling nuts with electrical wiring must be connected to the cylinder caps and screwed in. The engine shut-down mechanism must be reset and seals installed in its frame. The blower plates and transmission cover must be replaced.

When working with apparatus PK11-1, it must be kept in mind that one may not depress the "test" button until the "test" lamp has been extinguished for at least 15 seconds. Also, the TS/FPS switch should not be set while the "test" lamp is lit.

If a defective temperature-sensing element results in the "test" lamp staying lit 2-7 seconds, then the "reset" button must be depressed and released after 10 seconds. After correcting the problem the check is conducted once again. If the "test" lamp doesn't light up when the "test" button is depressed, one must depress and release the "reset" button, and then once again press and release the "test" button. In checking temperature-sensing elements TS1-TS11, the filter ventilation system vent must be working through the filter-absorber.

After completing the above checks, the tank armament is serviced. Firearm barrel-cleaning solution, when available, is used to clean the cannon bore and machine-gun barrels. Otherwise, diesel fuel or kerosene is used (remember -- firearm barrel-cleaning solution is poisonous!). If evidence of corrosion is found in barrels they must be thoroughly recleaned. Inspection of the coaxial machine-gun must include a check of whether or not pin/splint fastenings and seals are used on the adjustment mechanism screws. Also, the gas regulator must be in position "1." Clearance between the support and rear slide block must be 14-18 mm.

After inspection, the cannon bore is lubricated with MZ (winter oil) or GOI-54p. Machine-gun parts are lubricated with KRM [oil dilution valve] (technical specifications 38.401196-77) or liquid gun lubricant. The unfinished parts are also lubricated (muzzle, test platform, etc.)

The cannon exhaust system is then serviced, with diesel fuel used (kerosene) for cleaning. The nozzles and apertures are cleaned with a rag wrapped around a wooden stick. After cleaning, the exhaust mechanism parts and components under the receiver are wiped dry, then lubricated with a thin layer of MZ (GOI-54p). The bolt is partially disassembled.

When necessary, the breech casing and gear shaft of the hoisting mechanism may be cleaned with a rag soaked in kerosene or diesel fuel, with care being taken not to allow fuel to drop inside the mechanism. After

cleaning, the parts are wiped dry. All unfinished spots are then wiped using a rag impregnated with MZ(GOI-54p) or TSIATIM-201 [Central Scientific Research Institute of Aviation Fuel and Lubricants]. The strips under the breech and the hoisting mechanism are covered with TSIATIM-201, using grease gun 2A20.Sb.41-58 from the cannon's spare parts, tools and accessories kit.

One final operation is necessary when servicing the tank -- all leather belts should be smeared with castor oil.

COPYRIGHT: Tekhnika i vooruzheniye, 1986

12511

CSO: 8144/3467

GROUND FORCES

LT GEN KORBUTOV ON LESSONS FROM SOCIALIST COMPETITION

Moscow KRASNAYA ZVEZDA in Russian 25 Oct 86 p 2

[Article by Lt Gen I. Korbutov, 1st deputy commander of the Order of Lenin Leningrad Military District, under the rubric "Initiators of Competition Have Experience, Lessons, Reserves": "An Officer Has a Special Responsibility". First three paragraphs are source introduction.]

[Text] The Guards tank regiment, twice a recipient of orders, commanded by Gds Col A. Grigorash, delegate to the 27th CPSU Congress, fulfilled its commitments and earned the title of outstanding. Three battalions and the majority of companies and platoons became outstanding. The inspectors made special note of the high tactical and weapons training of the tank crew members.

The increase in the qualitative indicators of the guardsmen's training was largely the result of an active search for ways to improve the professional training of officers through the joint efforts of the commander, staff, and party committee.

With this account of the deeds of tank crew members we begin publishing materials from units [chast] which are initiators of socialist competition in the services of the Armed Forces under the motto "We will carry out the decisions of the 27th CPSU Congress and will reliably defend the achievements of socialism!"

This training year was significant in a special way. The course toward restructuring, undertaken in the country and in the Armed Forces, naturally has affected the lives and affairs of every military collective. As far as the regiment--initiator of competition in the Ground Forces--is concerned, signs of the time, in my opinion, are primarily that energetic steps were taken in the unit to establish personal exemplariness and the leading role of Communists, especially officers, in carrying out party and official duties. I think this is precisely what contributed decisively to the acceleration in combat training and the achievement of a high end result.

Professional training of cadres, in particular, became one of the pivotal directions in the work of the commander, the staff, and the party committee of the regiment.

Above all, it should be noted that after a thorough analysis of the existing shortcomings in professional training of various categories of personnel, it was concluded here that a restructuring of the very psychology of approaching their training was needed. Experience was convincing: officer training will not yield the desired effect as long as it is viewed as a subject of general scope without taking into account the individual peculiarities of officers and the specific nature of their duty. Thus, the essence of the restructuring in this case was seen as taking, as much as possible, a more practical approach in solving specific tasks.

I will say that in the headquarters and the corresponding directorates of the district we watched with great attention what was being done in the regiment, including in the way of improving professional training of officers. We were all concerned by one question: Would they be able independently to find the optimal variant of organizing it or would it still be necessary to adjust something?

We did not have to wait long for the answer. It seems to me, a tactical live-fire exercise in the battalion commanded by Gds Capt N. Danilenkov spurred the command of the regiment to solve the problem. At this exercise, the battalion commander as well as certain other officers demonstrated poor tactical and weapons training and did not command the heterogeneous forces and equipment confidently enough. In short, it was clear that many officers, above all, do not have enough practice either in solving problems related to organizing and waging combat or in using TOE equipment and weapons.

I would not say that this problem has been completely resolved in the regiment today (incidentally, as a check showed, it applies not only to the initiators). During the check there were also cases where officers handled their available forces and resources in the training battle by no means in the best manner. Nevertheless, such cases are much less frequent in the regiment today than, say, in the last training year. This once again indicates that emphasizing the practical trend in officer training and the individual approach has proved to be right.

The results of this exercise, I recall, were analyzed at an expanded session of the party committee. Beforehand, the regimental commander thoroughly analyzed the reasons for the identified shortcomings with deputies and chiefs of branches of troops and services. The conclusion was clear: It was necessary to teach officers more about practical resolution of problems which they might encounter in actual combat. But to bring it to reality, as far as I know, required considerable energy on the part of the commander, the staff, and the party committee.

The first thing they did was to make the officers understand that they would have a special responsibility. Comprehension of this truth came about in various ways. The experience amassed in the regiment in this light still has to be studied. But now something can already be recommended.

There were, for example, the following episodes. Training classes were being held on driving tanks. The company commander, Gds Sr Lt I. Krasovskiy, returned to the starting line without having carried out the task according to the scenario. The tank, he said, was not up to it; it was a very difficult obstacle....

Then the regiment commander gets into the tank with the officer and carries out the same scenario, having made it much more complicated.

"You have a poor knowledge of the equipment and its capabilities," was his assessment. Right then he ordered all officers at the tank training area to answer in 5-7 minutes in writing three questions on operating and maintaining equipment and armament. He then collected the sheets of paper, graded them, and announced the grades: Gds Capt G. Bordulev--2; Gds Maj V. Trusov--3; and so forth. Having stopped the driving for a while so as not to waste fuel and motor life, the regiment commander assembled everyone in the technical classroom, explained each person's mistakes on mockups, checked the officers' actions on trainers, and only then authorized them to resume driving the tanks.

It must be said that such "blitz-questioning" magnificently urged on certain officers and became a sort of impetus for acceleration in officer training as a whole.

I dwell in detail on this fact in order to re-emphasize how much depends on the personal training, aggressiveness, and exactingness of the one who by call of duty is obligated to teach subordinate officers. Being a true master of tanks, Gds Col Grigorash in particular also had the moral right to hold strictly accountable those who did not have a handle on the equipment. And things got moving: Soon the regiment commander had a real opportunity to raise the question about a decisive increase in the classification of officers. This very thing had been a weak spot in the unit for a number of years.

Now the ability to use the equipment and weapons effectively in all types of combat is almost the chief distinguishing feature of this regiment's officers. In any case, observing the actions of such officers as Gds Capts Yu. Veretennik, A. Varavin, V. Ulshin, and A. Kharchikov during a check, one could not help but be pleased with their ability to carry out complex tactical missions, taking into account the increased capabilities of modern equipment and weapons.

Also in terms of methods training, many officers whom I had the chance to see earlier now looked better. There has begun to be more organization and order in the activities, and the discipline of the training process is stricter. All of this was lacking before in the regiment, about which KRASNAYA ZVEZDA once wrote.

Now, analyzing what has been done in terms of improving the organization of officer training, the regiment thinks about how to place unused reserves at the service of combat readiness. And let us say frankly, there are

considerable. One of the most important forms of professional training of officers, as we know, is independent training. As a whole, it can be said that it is organized fairly well. The regimental staff strictly sees to it that the necessary conditions for this are created in the subunits. If necessary, an officer can turn to the methods council for consultation on some or other question. Everyone has an individual assignment. They are given out so that their performance by an officer not only helps him improve the work skills in the position held, but also helps him gain experience in performing various tasks in the position at least one step higher.

However, as the check showed, this mechanism in the overall system of officer training also needs to be worked on. In particular, independent work could become a more substantial supplement to the active forms of officer training being used in the regiment if it were more closely tied to specific tasks facing the subunits at a given stage. This also pertains to individual assignments. The "sore" spots in the regiment where the efforts of all officers need to be concentrated today are not always taken into account when distributing the assignments. I have in mind, say, the struggle to make effective use of training time and resources and searching for the most promising tactical procedures, considering the equipment in the inventory of the subunits. More active use could be made of individual assignments for the purpose of improving the work methods of officers, especially young ones, for establishing strict prescribed order in the subunits.

A good deal has been done recently to involve officers in technical creative work. Whereas before technical and firing circles, let's say, were supervised mainly by specialists of technical services, now this tradition has been broken in the regiment. The circles are most often headed by company commanders, which creates additional opportunities for accelerating their professional growth. In addition, the constant focus of officers on creative use of equipment in combat and the search in this direction serve as a sort of magnetic force for young soldiers, uniting them into a single combat family.

However, there are also reserves here. Life in the regiment, in my view, could be more active and interesting if the work of those same circles was not limited to within one subunit. Contests and competitions could be organized between them, for example, as is done in the battalion commanded by Gds Capt Veretennik.

Unfortunately, the experience gained here in this matter and others is still being poorly used. Furthermore, broad dissemination of it could be of considerable benefit. Young officers especially need this. Experience shows that the process of their professional development is greatly drawn out when, as we say, they have to stew in their own juice and learn everything by trial and error. At a meeting of the headquarters party organization, where the results of the check and the tasks for preparing for the new training year were discussed, a question was justifiably raised concerning the need for more efficient study and incorporation of the experience of such commanders as Gds Capt Veretennik.

In connection with this, there is also reason for the specialists of the headquarters and directorates of the district to begin thinking. Many of them

have visited the regiment several times throughout the year. It can be said that in their eyes the regiment has become as we see it today, on the leading edge of the district's units. Now is the very time to try to understand this process thoroughly and draw lessons for work in the future. We will be able to judge our ability to work in conditions of restructuring by how we use the experience of the initiators of competition.

12567

CSO: 1801/52

GROUND FORCES

NIGHT EXERCISE DEMONSTRATES BATTALION'S SHORTCOMINGS

Moscow KRASNAYA ZVEZDA in Russian 22 Oct 86 p 1

[Article by Maj Yu. Klenov, Red Banner Belorussian Military District, under the rubric "Exacting Analysis of the Results of the Training Year": "After the Night Attack: It Became Clear that the Battalion had not Fulfilled its Commitments in the Competition."]

[Text] Events in the area of the battalion tactical exercise unfolded swiftly. In absolute darkness the armored avalanche irrepressibly rolled on the strong point of the defending forces. Only the lights on the stern of the tanks and infantry fighting vehicles, not noticeable from the "enemy's" side, were visible from the exercise director's command vehicle. Judging from them, one could conclude that the subunits were strictly maintaining the order prescribed by the battalion commander for moving to the line to go over to the attack.

However, it was not that way very long. Soon individual vehicles began to fall behind. First a gap in the battle formation began to show on the left flank; then the formation broke down altogether. Then, on the battalion commander's signal, the artillerymen began setting light markers. But here something unforeseen happened--an illuminating shell, lighting up the terrain, hung...literally above the battalion battle formation. Thus, instead of making orientation easier for their own subunits, the artillerymen had played into the hand of the "enemy." There is no need to say how costly such "illumination" could have been to the battalion had it happened in actual combat.

Unfortunately, this episode, indicating the night training shortcomings of the personnel of the battalion commanded by Gds Maj V. Sudeykin and certain other subunits of "N" Tank Regiment, at this exercise ending the year was by no means the only one. The discrepancies continued. First, someone lost his bearings, like Gds Lt K. Roshchin, for example, whose tank changed direction and rushed...so as to cross over in front of adjacent tanks. Then, someone's combat vehicle, "stumbling over" an obstacle, gave its position away by turning on its illumination devices.

We will be objective. As we know, the night seriously complicates troop actions. So it was in this case. Advancing in the darkness, the commanders

and their subordinates experienced a good many difficulties. Under conditions of limited visibility it was not easy to follow the markers, maintain speed and direction, observe distances and intervals between vehicles.... Nevertheless, this cannot be an excuse for the failures. There were no novices driving the tanks and vehicles that night, but class specialists and guardsmen!

Incidentally, as is already apparent from the episode cited at the start of the article, it was not only weak skills in driving under night conditions that caused the subordinates of Gds Maj Sudeykin not to fulfill their socialist commitments. One must also add, for example, the fact that the battalion turned out to be difficult to control. This happened due to violations of radio procedures. The airwaves were literally jammed with unauthorized conversations, unnecessary questions and clarifications. The deeper the battalion went into the "enemy's" defenses, the more obvious the tank crews' shortcomings in night training became.

During development of the offensive deep in the "enemy's" defenses, the exercise director began to complicate the situation by manipulating the targets. New targets kept appearing in the path of the attacking forces. The actions of the "enemy" required commanders of all levels to be able to maneuver forces and resources energetically according to the rapidly changing situation. The desire of Gds Maj Sudeykin somehow to help the subunit commanders maintain the set heading was understandable. However, with incomprehensible thoughtlessness he violated procedures for using illumination devices. Throughout the entire attack elements of the battle formation kept being illuminated by signal rockets.

...The exercise ended long after midnight. The inspectors counted up the number of targets hit and rated the actions of battalion personnel as "satisfactory" overall.

Commenting on the results of the exercise, the tired battalion commander was short-spoken:

"The battalion carried out the mission, meaning the people are able to do something..."

Why, one can agree with this. The people indeed have learned something. Some of the exercise participants, let us say frankly, deserved praise. For example, Gds Sr Lt V. Feofilaktov commanded the point skillfully and decisively. Gds MSgt Yu. Shilovich demonstrated excellent skills in handling equipment and weapons. However, these singular successes do not make the overall picture of night training in the battalion attractive.

Also alarming is the fact that some of the officers, instead of seriously analyzing the shortcomings and searching for ways to improve night training, are now trying to find explanations, if not excuses. In particular, one can hear references to the swampliness of the training area, the rotted-through corduroy road, and so forth. Of course, all this had some effect on the results. But a natural question arises: In this case, what was the goal of the battalion personnel and for what were they training during the summer

period? Were they really not training for actions in a situation most closely approximating actual combat?

Here is just one characteristic trait: before the live-firing phase, none of the subunit commanders went to the trouble of acquainting subordinates with the tactical situation. The people did not know with whom or with precisely what kind of "enemy" they were do battle. It turned out that the subunits went into the attack against...targets.

The battalion has much to ponder, as does the regiment, analyzing the results of the training year. But now it is already clear: one of the most important directions in working on further strengthening up the qualitative indicators in combat training is to improve the night training of personnel. The lessons of the night battle require precisely such a conclusion.

12567

CSO: 1801/52

AIR/AIR DEFENSE FORCES

MAJ GEN GARBUZENKO CALLS FOR REVIEW OF SHORTCOMINGS IN TRAINING

Moscow KRASNAYA ZVEZDA in Russian 21 Oct 86 p 2

[Article by Maj Gen V. Garbuzenko: "With a High Degree of Exactingness. Combat Training: Reserves for Acceleration"]

[Text] This occurred during live-firings for evaluation. The target headed straight toward the installation without a single maneuver. The soldiers detected it in a timely manner and began tracking it. Suddenly, the airborne "enemy" changed altitude sharply. He did this so unexpectedly and quickly that the missilemen lost him. And no matter how they tried to find him, they could not.

The conclusion of the evaluators was clear: the specialists of the subunit headed by officer V. Gladun who were participating in the work on the target did not carry out the combat training mission.

Such a thing rarely happens in our troops and is seen as an unusual occurrence. A thorough analysis of the unusual occurrence is made in a unit and subunit by what is called a hot trail, and its root-causes are identified. It should be expected that the same would be done this time.

Yes, the unit command authorities took considerable efforts to compile an objective picture of what happened. They began by studying the information sent by the objective control equipment. It turned out that after the target made the sharp maneuver, the missilemen still had the opportunity to "find" and destroy it. But they were unable to take advantage of this opportunity. Other errors were also disclosed in the soldiers' combat training work. However, in the subunit itself they approached this, to say the least, without proper concern. What is more, some officers questioned: Perhaps we did not make the mistake here, but the exercise leaders overdid it with the scenario input? Such a maneuver, they say, is not characteristic of a real target; if that was not its characteristic, the target would not have gotten through. These statements, as they say, are assumptions. The expression "were it not for" is not part of the formula of the combat readiness of missilemen. Do they really not understand such a simple truth in the subunit?

For the sake of objectivity, it should be said that a truly unusual air situation was created. But, really, will the enemy not try to do this in

combat? Let us remember the recent aerial raid by U.S. fighter-bombers on Libya. There was also an element of surprise in the tactics there.... So, one must be able to counter any move by the enemy and fully utilize the capabilities contained in a surface-to-air missile complex. Training of personnel must be conducted in such a way that all specialists are prepared for successful actions in the most complex situation.

Why in this subunit was such a blunder possible? After all, during the year inspectors of various ranks had visited the subunit several times. How did they assess the state of affairs? Here are some of those assessments. "All specialists of the subunit have a high classification, and the training process is characterized by a high degree of organization." "The subunit successfully carries out set tasks at control exercises...." Are these the conclusions of an incompetent person? No. These are statements from various commissions working in the subunit. Is that not why the opinion was reinforced in the missilemen's subunit that there were no flaws in their training? The source of such conceit is the low exactingness of the inspectors.

Exactingness of an inspector.... It means so much! If an inspector deeply delves into the organization of combat and political training, evaluates the training of soldiers exactingly and according to party principles, and identifies shortcomings and strives to eliminate them, then the officers of the subunit in which he worked adopt the same approach.

Needless to say, this process in life does not take place so smoothly and simply. Each of us has probably heard when an demanding officer is spoken of as a callous, dull, and unkind person. But in time people are convinced that true kindness lies namely in exactingness. They begin thinking considerably more highly of such officers than of those "good-natured persons" who pretend not to see shortcomings and tolerate leniency in training and oversimplification....

As a rule, specialists with high professional training serve in headquarters. They are granted considerable rights. Why then does the system of analyzing and checking work in subunits sometimes break down? The answer here is clear: These rights are not always used with the proper principles and responsibility. To what does the work of a staff officer in a subunit frequently boil down? To a cursory check of the organization of the training process, a fixation of where the commander and his deputies are falling short. Shortcomings in reports are called secondary, "minor" ones. Hence, there really seems to be no reason for holding a commander accountable.

For example, the surface-to-air missile subunit commanded by officer M. Popok has been demonstrating low results for a long time. The next live-firing the missilemen earned low marks. We decided to look into things a little more thoroughly to find out what was being done in the subunit by the unit staff to increase the quality of training. It turned out that several commissions had visited the subunit. They made the following conclusions: the collective has poor organization; the efficiency of the officers' activities is low.... As you can see, they are quite general in nature. None of the staff officers who

visited the subunit even tried to ascertain whether the situations which occurred at the test range were being worked on.

But perhaps the steps taken were more concrete? Not at all. The unit commander, his deputies, and other officers of the directorate addressed the missilemen at several meetings and gatherings. Having criticized those who "distinguished themselves," they called upon them to "carry out purposefully the tasks facing them." And that was it.

Without a doubt it is necessary to give a basic, critical assessment to those who were not working to their full capacity. But the main thing is to take a second, more important step--to outline specific measures for eliminating the shortcomings and increasing the quality of training of specialists, to accelerate combat training, and to carry out what is planned. But this is exactly what was not done.

Such a work style gives rise to the same superficial directions, instructions, and telephone messages which do not take into account the true level of specialist training or the capacities of the material and technical training base. The visits of such leaders to the "sites" end, as a rule, merely with sharp rebukes and pep-talks, which do not do much good.

At assemblies, demonstrations, and instructional methods classes we strive to explain and show using concrete examples that in order to oversee combat training effectively today it is necessary to break the psychology of people who have become used to using old methods. This must be done by well thought out organization, personal example, and effective measures of control. By way of illustration, this is how our best specialists in teaching methodology Lt Col G. Gutyrchikov, Maj V. Makarov, and others work.

...The group under the supervision of Lt Col Gutyrchikov went to inspect the subunit commanded by officer N. Tkachev. They began their work by studying the level of training of personnel and determining the methods training of each officer. Special tests and exercises were developed ahead of time for this. The inspectors visited the combat stations, analyzed the process and quality of functional duty execution by the specialists, and talked with many officers. In doing so, they also took into account the readings of the objective control equipment. All of this combined made it possible to give an objective assessment of the combat training of soldiers of the subunit. But the main thing was to obtain accurate starting data for adjusting the training of the missilemen.

They conducted a demonstration drill for this purpose. One small point: For organizing it, Lt Col Gutyrchikov involved not only Maj V. Makarov and Sr Lt A. Yeletskikh who had arrived with him, but also platoon commanders and crew chiefs. He gathered them together and listened to each person's opinion on accelerating combat training and increasing the quality of the training process. Many sensible suggestions were made, including for the upcoming drill, but the essence was that subunit commander was shown that he had someone on whom to rely in future work.

I would like to say something more about one particular feature in the work of an inspecting officer. It seems to me that his exactingness must be demonstrated not only in an objective, demanding evaluation of the state of affairs. He is called upon to help eliminate shortcomings and notice in time the new and progressive things which help to increase troop combat readiness, and strive to incorporate it. Here is how this is done, for example, in the headquarters of the unit in which Lt Col S. Prozorov serves. Directorate officers here not only help commanders structure the training process in a methodically competent manner, but constantly identify everything positive that emerges in the subunits and in the training process. Convinced that some or other new method yields good results, they incorporate it into the training practice in other subunits. In doing this, they remember: new things do not always take root right away. In recommending, for example, adoption of sound training developments worked out in the surface-to-air missile subunit commanded by officer A. Garkusha, they were also concerned about supplying the missilemen with the necessary material and technical resources and simulation equipment in advance.

At the initiative of the headquarters, visits to the best subunits by delegations from collectives lagging behind also became widely used in the unit. Microcalculators, cameras, and notebooks, with which all delegation members are equipped, help to reproduce variations of the target raid later on and more effectively use the advanced experience.

All this has become possible because the unit staff, and especially the commander, his deputies and political section, first demonstrated the example of restructuring and working in a new manner. Here they cite the names of Maj N. Rubtsov, Capt V. Volkov, and other officers who have firmly learned the truth: in order to know the actual level of combat training in subunits and effectively influence the organization of combat training, it is necessary to do specific work directly in the subunits. All the directorate and staff officers, including the commander, are constantly studying methods of this work. But it assumes a good knowledge of guiding documents and methods instructions and the ability to think analytically. Such an approach enables the staff officers to avoid administration by mere injunction during an inspection and to teach commanders to organize things so that each specialist irreproachably carries out his functional duties and fulfills his socialist commitments.

The times require us to take a critical view towards existing shortcomings and problems and to solve them constructively. Efficiency--this is not loud speeches at meetings and good reports to the boss upon return from a temporary duty assignment, but the concrete, effective work of each person in his assigned section. This is precisely our guidance from the decisions of the 27th CPSU Congress; this is precisely what restructuring requires.

12567

CSO: 1801/52

AIR/AIR DEFENSE FORCES

LT GEN SVIRIDOV NOTES LACK OF REALISM IN PILOT TRAINING

Moscow KRASNAYA ZVEZDA in Russian 28 Oct 86 p 1

[Article by Lt Gen Avn I. Sviridov, Honored USSR Military Pilot, under the rubric "An Exacting Analysis of the Results of the Training Year": "What Were the Results of the Simplifications"]

[Text] I had the opportunity to take part in inspecting a regiment which had rich traditions. According to the results of the first period of training, it was among the leaders in socialist competition. Nearly all the pilots here have a high class rating, and some have the highest qualification of "military pilot-sniper." However, by the end of the year, as the results of the inspection show, the tempo undertaken at the start began to decline; they began to display complacency and a certain slackness.

Thus, during the check of pilot readiness for flights there arose a number of questions on their organization. For example, the commander making the plan for the flights listened to the weather forecaster's report for the next day, which said that the weather permitted carrying out the set tasks beginning at 1100 hours. However, the flights were set to begin at 0900. The question arises, why? The commander could not explain the reason for this "gap." But the working rhythm of the unit was affected. And this was during the work of the inspection board, when everything should be done with utmost organization and exactingness of oneself. What then does that say about routine, everyday work?

Among the basic tasks given the aviators for the upcoming flight shift were control flights to check flying, navigating, and combat employment techniques. Also called for was a check of the ability to penetrate air defenses of the probable enemy. But when the check of flight readiness began, it turned out that the pilots did not picture their actions in the course of the forthcoming flights clearly enough. Thus, Maj V. Uvarov, reporting that he would have to penetrate "enemy" air defenses during the flight to the target, was unable to indicate the line at which this mission was to be carried out and did not name the specific antiaircraft weapons and methods of penetrating them. The point is that Maj Uvarov and other pilots did not know all this, since no one had spelled out this mission to them. Therefore, the crews also did not prepare seriously for carrying out the missions in conditions most closely approximating actual combat. Of course it was not a matter of their personal

desire or lack of desire, but how the aviator training was organized by superiors. The element of combat training was highlighted formally, calculating not on mastering it but to fill a square; saying, we are not forgetting it, we know what requirements are placed on organizing a strike against "enemy" ground targets. But such formalism and simplification in combat training are not permissible. One must fight against them daily and without compromise. The following example illustrates how this can be done.

There was a time when serious attention was not given to questions of air defense penetration en route to the target during inspections of aviation units at the test range. But the time of indifference has ended, the demand for quality of inspections has increased, and those subunits whose commanders have not become used to treating organization of combat training seriously have, one after another, begun receiving unsatisfactory ratings. The increased exactingness has been beneficial: the next time these commanders brought their subunits to the test range with an arsenal of several dozen different variations of penetrating air defenses. So, most of the pilots know how to act but are just not required to apply this knowledge. That same Maj Uvarov and other pilots of the squadron being inspected, after an hour allotted to them for additional preparation, were able to answer all questions on this subject precisely.

Unclear, vague task assignment results in the same non-specific preparation for carrying it out, essentially non-fulfillment. Pilots not trained to see the objective of each sortie clearly do not strive independently to work out possible variations of a future battle or react creatively to the fulfillment of each mission because they are not trained to think and are constricted by earlier stereotype decisions prepared in advance.

At this flight readiness check it found out that the check of flying techniques for all squadron pilots was planned according to one and the same exercise, according to standard preparation. But where is the individual approach? Where is the opportunity for a pilot to show his worth or for the evaluator to evaluate his capabilities and airborne training comprehensively? Therefore, it is not surprising that when flight commander Maj V. Parkhomenko was asked how to achieve the minimal altitude loss when executing an aerobatic maneuver, he answered: "But I don't have that exercise tomorrow." Being a first-class military pilot and having fully mastered flying in this type of aircraft, the officer could not even mentally go beyond the limits of the stereotyped assignment. Is this really the way to train an aerial fighter? Will he really be able to find a non-standard solution in real combat and defeat the enemy?

The inspection showed that the overall level of pilot training is sufficiently high. However, the knowledge and skills often remain an unused reserve because during the daily training an atmosphere of combat tension is not always created, the pilots do not develop a sense of fighting the enemy, and practice of elements of combat are often more like a game of giveaway checkers.

The final inspection identified a number of shortcomings in the organization of the regiment's pilot combat training. However, it cannot be asserted that

the aviators labored throughout the year without exertion. Their military labor cannot be called easy, but its effectiveness could have been considerably higher if the subunit commanders and every pilot constantly remembered the main objective: the need to prepare for combat, for a possible encounter with a real and not imaginary enemy. It is necessary decisively to get rid of indifference and complacency, restructure people's thinking, and prepare them not to carry out assignments for the sake of high marks but for more complete mastery of the capabilities of the combat equipment, for carrying out real combat missions.

12567

CSO: 1801/52

AIR/AIR DEFENSE FORCES

LT GEN RUDNYY ON DUTIES OF AVIATION MEDICAL OFFICER

Moscow KRASNAYA ZVEZDA in Russian 22 Nov 86 p 2

[Article by Lieutenant General of Medical Services N. Rudnyy: "Cleared For Flying -- Aviation Medicine and Combat Readiness"]

[Text] On flight days, the regimental doctor, Captain of Medical Services A. Polevin, is one of the first to show up at the airfield -- and not only so that he can finish the pilots' pre-flight medical check-ups in time. He understands that the officers' emotional attitudes during up-coming flights depend to a large degree on him. A reassuring word before difficult work helps a pilot get rid of the nervous tension that involuntarily begins and gets in a better frame of mind to carry out the upcoming task.

But the physician's primary assignment during flights is to monitor the health conditions of those under his trust.

He noticed a slight abrasion on the bridge of Senior Lieutenant V. Smirnov's nose.

"What's this you have?" he asked, trying not to pass on his heightened interest in this at-first-glance insignificant scratch.

The pilot shrugged, "Well, I caught it on a strap during a parachute jump. It's not worth worrying about."

Polevin thought otherwise. He carefully examined the officer and detected yet another bruise on his leg which was causing the pilot to limp slightly. But the abrasion on the bridge of his nose was enough to ground the senior lieutenant that day. The gas mask would have irritated the bruised spot and could have distracted the pilot's attention. And there are times in the air when this must not happen, especially to a young pilot. The injury to the leg could cause an improper force distribution during energetic activities which in turn could lead to errors in piloting the aircraft. In short, the doctor had enough grounds to recommend to the unit commander that in the interest of safety the pilot be grounded for health reasons.

A flight physician has a special duty. He deals with people's practical health and is called upon not so much to cure pilots as to maintain and

strengthen their health. He also monitors them so that they take off in total health and their physical condition does not impair the accomplishment of their assigned missions in the air. A flight physician must be a very observant person, a subtle psychologist and an attentive comrade. Only with these attributes can he assess the pilots' attitudes toward him and count on their sincerity and trust in questions concerning their health.

Nothing good will come of a physician who sees being removed from his pilots as an end to itself and as a method for maintaining his authority. Pilots will shun such a doctor and will never share their doubts about the unit's health with him. This can lead to illnesses being concealed and possibly to these illnesses later becoming aggravated during flights themselves. It is not hard to imagine what the consequences of this could be.

Once while on a flight, Lieutenant E. Vlaskin suddenly became totally disoriented. For a short time he did not answer inquiries from the radio and his airplane suddenly lost altitude. It turned out that while carrying out his mission in the stratosphere the lieutenant had suddenly lost consciousness for a short time. It was later discovered that the reason for this was that after noticing that he had gained a little weight the lieutenant decided to "lose it" by fasting. This is what his wife advised him to do. He did not eat food and drank only water for days before the flight. If this was the only factor, it would certainly not have led to the fainting spell. But for the first time in his life, by some accidental coincidence, there were also some emotional problems that had an impact on him. The lieutenant had had an argument with his wife the morning before the flight. On the way to the airfield a senior officer had stopped him and noted that he had not saluted. The take-off was delayed because some problem was detected in the airplane and the lieutenant really had to carry out the planned exercise. He was therefore nervous. The fact that all of these things happened at the same time led to the fact that there was almost a serious accident.

It is certainly possible to fault the pilot for disrupting his eating pattern without a doctor's advice, but one should also reproach the doctor for the fact that he did not detect it himself in time and did not pay attention to the pilot's depressed state.

Rest pattern disruptions, being overtired, not getting enough training and pilot inner ear problems can lead to such dangerous phenomena during flights as illusions, loss of spatial orientation, false turning sensations or flying upside down. These can not only cause mission failure, but also accidents. Noticing and preventing such events are the direct responsibility of the flight physician. But it is more than just one-time measures and special training that makes a doctor successful at this. Success depends on a whole complex of medical measures that are conducted in the unit.

For example, Major of Medical Services A. Ivanov makes up a psychological profile for every pilot in the unit. This helps him correlate the results of his observations of flight personnel health conditions. This gives the doctor the opportunity to detect trends in changes among the primary medical indicators and diagnose illnesses in a timely manner. Aleksandr Semenovich also regularly and scrupulously studies accidental acts that pilots have made

during military training and errors that they have allowed that have led to accidents. He carefully considers the stress on every pilot and takes measures in a timely manner to arrange for short preventive rests for those who need it. At the doctor's initiative the unit has a special room for psychological flight preparation. It is equipped with stands that show how it is possible to prevent becoming overstrained on a flight, how to use self-control to maintain health and how one feels in the air. The problem of improving the quality of medical support for flight personnel and its impact on combat readiness are regularly discussed by the unit's methodological council. Feeling that modern aviation equipment makes high demands on the pilots' physical condition, the unit is focusing a lot of attention on preparing flight personnel to work under extreme piloting stresses.

But unfortunately there are still places where this isn't being done. For example, Major of Medical Services O. Korobkov's documentation monitoring the health of flight personnel is at times filled out in a formalistic manner and he is not putting enough attention on calculating and determining flight stresses. Therefore there are numerous cases of pilots' work and rest routines being disrupted; situations that promote preconditions for flight accidents.

The most important sector of a flight physician's work is organizing rest for flight personnel. However units rarely use the dispensary rest areas that are designed for this. Instead they are used as hotels for attached officers and other personnel. This violation is most often seen in military transport aviation units.

Up to now, the potentials of preventive medical-spa treatment and health recovery for pilots are not being used effectively enough. For example, leaves that are allocated for flight personnel in the Far East and Baltic Military Districts are not used as they were intended. At the same time pilots from these districts visit Moscow and request that leaves be given to them. The poor organizational work of some flight physicians and their senior chiefs has led to this situation. An inconsistent understanding of leaves for flight personnel and the violation of the established lengths and schedules are also having a negative effect on the organizational quality of rest days for pilots and are affecting the quality of their military training.

There are also many areas of responsibility for the flight physician, not the least of which are medical supervision, monitoring the conditions and work of dining and bath-and-laundry shops, water supply systems and other vitally important sites in the aviation rear area. Even the condition of local water carriers and open sources of drinking water can have an effect on military training. Here is an example. In one air group almost all the mechanics were unable to go out to support flights immediately as they were at the dispensary with a slight case of poisoning. It was later discovered that they had all drunk from a spring located not far from the unit's traffic control point. No one knows when and how this spring had appeared. Both soldiers and officers often drank from it. It turned out that this wasn't a spring at all. An old water pipe that carried excess irrigation water had burst. On the day in question fertilizer had been spread on the fields... By the way, the rear unit doctor, Major of Medical Services A. Yakimchuk (he has since been

transferred to another unit), had often warned the commander about the necessity of stopping servicemen from using that "spring," but he was not able get anything done and the result is now history. Flights were actually disrupted, the health of personnel was damaged and the quality of military training was reduced.

The health of our personnel is a valuable asset. The successful resolution of tasks associated with the human factor's influence on the military employment of aviation today is impossible without reliable and qualitative medical support for aviators. The accomplishment by flight physicians of their professional duty depends first and foremost on themselves, on the level of their knowledge and organizational skills. But that is not all. It also depends on the doctor having a close relationship with the commander, political agencies and party and Komsomol organizations, with flight personnel and with all the specialists that maintain the combat readiness of the aviation unit. Only this type of approach can set up aviation medical work in such a way that the regimental doctor can examine pilots and always decide: "this one is fit to fly."

12511
CSO: 1801/88

AIR/AIR DEFENSE FORCES

GSFG UNIT SEEKS TO IMPROVE OPERATIONS AGAINST JAMMING

Moscow KRASNAYA ZVEZDA in Russian 30 Nov 86 p 1

[Article by Lieutenant Colonel A. Krasov, Group of Soviet Forces in Germany: "At The Turning Point: In the Interests of Military Duty"]

[Text] The operators from Captain S. Kachanov's battery were the first to detect and lock-on to the target. This was a cause for happiness, for battery personnel had shown outstanding mastery and had left the military work of the other subunits behind. Once in a similar situation the soldiers had not, to put it lightly, achieved the best results. True, that time the aerial "enemy" had employed strong jamming. And this had been enough to bother the launcher personnel and keep them from destroying the target in a timely manner.

The "enemy" had also used jamming this time. But the soldiers did not become confused. They worked through the effects of the electronic jamming equipment by skillfully using the tactical and technical capabilities of their own equipment. And when the destruction signal reached them, they, as the saying goes, put up the victory sign for that difficult duel. What had helped the soldiers correct their earlier error?

The distance between a low evaluation and an outstanding one is difficult to cross. The essence of the matter is that here and, yes, in some of the regiment's other subunits earlier training had been done under simplified conditions, without the difficult jamming. This had led to the fact that specialists were lost in rather simple situations, never mind the extreme situations which often saturate the launcher crew's combat work when the enemy is employing electric jamming. In short, urgent measures were needed.

They began by increasing the quality of training. A number of instructor-methodological and demonstration exercises were run with so-called pencil in hand for this purpose and the unit determined where reserves were not being utilized. As regards revising methodological methods and planning, they were able to cope with that task rather easily. The major part of the exercises was conducted under conditions that were as close as possible to combat conditions. It turned out to be more difficult to correct the so-to-speak technical side of the problem. The trainers that we had at our disposal and on which operators perfected their skills did not allow us to create conditions which would totally correspond to the new training. What could we

do? We could wait for help "from above," but that would take a long time. We decided to bring in our own specialists [ratsionalizatory]. Captains M. Khripun and V. Borovikov and Warrant Officer V. Budkin were a great help in resolving this problem. They specifically prepared an original attachment for the trainer. This allowed us to create aerial conditions that were realistically complex.

But when they had resolved the problem with the trainer, there was trouble of another kind. It turns out that not all operators and even commanders wanted to process missions under these difficult conditions. The reason was that it was not as easy to get high ratings on the new trainer. Even excellent operators began to get a "satisfactory" rating. And as is known, there is no praise for lower ratings. Then the regimental commander made the following decision. There would not be any ratings on radar training and work on the trainer for the next month (as he explained during one of the service meetings); the problem was not with the trainer, but rather the skill level and real contribution that each was making toward mastering the new work conditions.

Major V. Butenko's subordinates were faster than others at achieving success. In a month his operators were operating reliably not only under the difficult jamming conditions, but also under extreme conditions. As a graded exercise showed, Kachanov's subunit was not progressing. What was the reason for that?

It turned out that Captain Kachanov was grieving over his failure and, as they say, had gone too far. He began to set up conditions at every training session that were so difficult, his subordinates simply could not cope with them. And they lost even more self-confidence. Major Butenko had increased the pressure gradually and had resolved problems that cropped up together with his subordinates. And only then did they take another step forward toward difficult conditions. This is not a new principle -- in learning, one moves from the simple to the difficult. But in this case, this principle was especially valid. Therefore we recommended to the officers and especially to Captain Kachanov that they take one element of the advance experience and dedicate one exercise to generalizing it.

And the fact that we focused especially intense attention on integrated exercises facilitated the successful mastery of the work skills under conditions that closely approached combat. During integrated training it is practically impossible to err in accomplishing normatives only for the sake of normatives. And the service chiefs who introduced the tactical situation through their directions also watched to see how these direction were carried out, prompted and advised. And they did not have to wait a long time for results. This was especially evident in the sectors where Major Yu. Zadnishevskiy was working. In many ways thanks to him, even while in protective gear soldiers began to meet norms while exceeding the allotted times.

I must honestly say that the psychological turning point did not come immediately or to all people. Some of them, as the saying goes, tried to move along the well-worn rut. For example, Major G. Kazhushko and Major M.

Belyayev more than once complained, "We have enough of our own problems. And the commander has had more than one headache because of Captain Kachanov's battery."

It is hardly right for an officer and a communist not to assist in resolving the common affair. It was necessary to, as they say, apply corrective measures to the work of service chiefs. And Major Belyayev even had to be held responsible to the party. Now he also has reorganized his work style.

There are also problems whose solution does not depend only on us. It is clear, for example, there are especially heavy demands on the professional training of all specialists when operating under difficult jamming conditions and when there is electronic interference. One should think that we could count on getting people who knew a lot and who were well trained. But what does happen is that some of the new personnel have to be put into formation for several months. Why? Because some training subunit graduates arrive without enough training. Well, as they say, let Majors Shanin, Platov and Yashkov and Senior Lieutenant Teterin be offended, but some of the specialists that have come from their training subunits have training weaknesses. For example, the training of Privates N. Bayramov and Kh. Usmanov and Junior Sergeant D. Kalykov was nothing other than a clear waste of their time. One should think that this approach to specialist training does not meet the spirit of the times and the needs for combat readiness.

The solution to the problem that life is advancing requires a collective effort. Only purposeful, single-minded work at all levels will let us restructure our work and reach a high level of combat training.

12511
CSO: 1801/88

AIR/AIR DEFENSE FORCES

MAJ GEN AVN ILYUSHKIN ON NEED FOR THRIFT IN AVIATION TRAINING

Moscow KRASNAYA ZVEZDA in Russian 5 Dec 86 p 2

[Article by Major General of Aviation V. Ilyushkin under the "Against Mismanagement and Waste" rubric: "They Saved a Kilogram, but Threw Away a Ton"]

[Text] The crew commanded by Captain A. Gavrilov felt uncomfortable in this gathering of pilots. During the flight designed to test their combat methods, the aviators had not accomplished their mission and the crew had returned to the airfield with the bomb that they were supposed to have dropped on the range. The reason was surprisingly simple: the navigator had not turned on one of the tumbler switches.

This incident was evaluated in detail and the reasons for it were analyzed. The regiment took all measures to preclude a repeat of such an event. But one thing was very apparent during the analysis of the "dummy" sortie: no one said a single word about the economic aspects of what had occurred and no one reminded the aviators that their error had cost the state.

I will address the question "How can you talk about economics in the incident in question?" and explain my thoughts. The flight in general did nothing to increase the pilot or navigator's military skills. Yet the crew expended much more than a single ton of aviation fuel and the exercise has to be flown again. Doesn't this seem like waste?

It is no secret that we still seldom talk about military training economy. As a rule, when we analyze exercises, flights and training and review monthly socialist competition and the training period of the last training year we talk about scores and percents. Unfortunately we do not consider how much fuel, equipment resources and ammunition an aviator expended to get one score or another. And at times a crew gets a "four" or "five" only on its second or third attempt.

And the result is that we still approach the question of economy with old yardsticks. And when we begin to talk about thrift, the first thing we consider is oils, special fluids and fuel sediment. We are commended for this and we give specialists incentives for this. We elevate military specialists [rationalizatory] to the honor-roll for creating resource-saving instruments

and assemblies. We give aviators their due if they simply select the proper flight range and save a little aviation fuel. We must certainly continue and support this work, but we will never achieve substantial savings if we limit ourselves to just these elements. Moreover, the low level of the training process' effectiveness and the poor organization of military training can negate savings that has been achieved by the programs indicated above. And the people who are looking for savings and those who make calculations will be very offended when a single aviator, through poor training or carelessness, causes a flight to be unsuccessful and uses up the entire fund of savings that took months to create.

By the way, it is not just pilots and navigators that have caused such failures during the last training year. In one regiment four crews once immediately turned back during flights. What happened is that the group technician, Senior Lieutenant I. Shchelanskiy, had allowed some errors when the electronic equipment was being serviced in preparing the airplanes for flight. Fortunately the airplanes landed normally at their own airfield. But how much fuel and motor resources were wasted due to the error of one man!

Here is another example. The aviation weapons engineer, Senior Lieutenant V. Roslovtsev, permitted some insignificant instruction violations. He did not inspect the on-board electrical bomb release circuitry before a flight and because of this the crew was unable to carry out its bombing mission at the range. After this there was an open, impartial discussion in the aviation engineer service. And again no one said a single word about what such "dummy" sorties cost...

True, there are cases where specialists who were responsible for an assembly or unit becoming non-operational or for unjustified over-expenditures of technical resources or fuel were required to pay a specified amount of money. But let's be honest -- this cannot fully compensate for the loss. And in those cases you have to look at losses on the moral level. As they say, we beat ourselves over the head over this and yet we never say a word about the economic problems in our work.

The struggle against mismanagement and waste is very closely linked with the struggle to increase the level of training for personnel, the effectiveness and quality of the training process and the organization of every flight shift. For example we have often had to watch as an airplane sits at a technical position or the pre-take-off line with its engine turning for an extended time awaiting permission to take off. We once had occasion to observe the following while inspecting the aviation unit where Lieutenant Colonel N. Sysoyev controls flights. After starting his engine, Captain V. Lopukhov got in contact with the flight controller and requested permission to take off. But the runway was occupied and the airplane ran idle for twenty minutes.

During that same flight shift Lieutenant N. Kolpakov waited to take off for twenty-seven minutes with his engine running. The guilty parties in this waste were certainly punished. But let us again estimate what these minutes with the engines running cost? If you consider that an officer takes off more than once per shift, multiply that by the number of flight days in a week, a

month and a year and you will get a firm value. This amount of aviation fuel would be enough for several military training flights. In short we must learn to take this into account...

Thrift is having economic, zealous attitude toward everything that aviators have been given for fruitful military training. And this demands that every specialist have a high level of consciousness and a thorough knowledge of the equipment and weapons entrusted to him and that he fulfill his duties in a punctual manner. But in actuality we sometimes get something else.

When doing post-flight inspections of the aircraft piloted by Senior Lieutenant F. Kharasov, the aircraft technician detected some dents and pits on the compressor vanes. A more detailed analysis allowed him to conclude that a bird had flown into the air intake. The engine was put out of operation prematurely. And who is to blame here? Someone would have been guilty had the problem not been discovered. But the commission that investigating this case was of another opinion. The document specifically stated, "The carbide cannons used to frighten birds away from the airfield are not working. The flight control group did not get timely information on the bird situation in the air. The fact that the grass at the airfield was not mowed on time made it possible for birds to nest on the flight field. The airfield practically never used sound signals and signal rockets to frighten birds away during flights..." And the meteorological service headed by Captain Yu. Rogozin was specifically found to be at fault, for the fulfillment of all the measures listed above was a direct responsibility of personnel from the meteorological service.

Here is another example. Some pebbles (it was later discovered that they weighed only about three grams) got into an engine during taxiing and take-off and they dented the compressor vanes. Again the engine had to be taken out of commission prematurely and sent in for repairs. This happened because several parts of the concrete cover were crushed and the airfield had not been properly prepared for flights. And the direct responsibilities of personnel in the separate airfield-technical service battalion commanded by Major V. Semenets include keeping runways, taxi lanes and aircraft parking areas clean and in order. As in the first example, the appropriate specialists' lack of a conscientious attitude toward accomplishing their responsibilities led to an unwarranted waste of state assets and to waste.

I also want to talk about another problem here. At one airfield the runways and other parts of the concrete cover have needed repairs for some years now. Requests for those repairs have been made, but the assets still have not been allocated. Although we have saved on airfield repairs, we have wasted more money on repairing engines that have become non-operational because concrete chunks have gotten into them.

Unfortunately there are antiquated procedures which today, during the course of reconstruction, are retarding our work to find reserves for savings and that, at times, lead to the unjustified over-expenditure of material resources and state assets. For example, we have reliable aviation engines that last a long time. But there comes a time after a resource is built when it has to be sent in to the factory for preventive maintenance. It would seem logical to

send these directly to aviation units after they have been repaired, especially since there are aviation units in close proximity to repair facilities. But this is not how it works. The engines and assemblies are sent to Air Force warehouses that are located far from us and they go out to units only when units request them. This wastes time and increases transportation costs. But this is the "government way".

We have many resources to use for a more economic, zealous expenditure of material resources and only a few of them have been cited above. We have to be more active in looking for them and no aviator has the right to keep from getting involved in this important matter. The contemporary aviation complex which is in the inventory of units and subunits was developed by talented Soviet scientists with inspiration from designers and tireless work from engineers, technicians and workers. Also a lot of national assets have been invested in these complexes. It is the responsibility of every commander, political worker and engineer to indoctrinate personnel with the spirit of thrift so that aviator-soldiers can, with as little cost as possible, keep their airplanes combat-ready constantly, ready to destroy targets with the first missile, bomb or first round and not be guilty of allowing "dummy" flights or having assemblies and units become non-operational.

12511
CSO: 1801/88

AIR/AIR DEFENSE FORCES

MAR SILANTYEV REVIEWS BOOK BY MAR POKRYSHKIN

Moscow KRASNAYA ZVEZDA in Russian 12 Nov 86 p 2

[Review by Mar Avn A. Silantyev of book "Poznat sebya v boyu" [Know Oneself in Battle] by A. Pokryshkin, Izdatelstvo DOSAAF, 1986, 511 pages]

[Text] They say to know oneself is a standard of wisdom. It appears that Aleksandr Ivanovich Pokryshkin gave his latest book such a title for good reason. Knowing his own strengths and capabilities always was a distinctive trait of his character, which in the end also made him the Pokryshkin whom we know and love.

Here he was--a young pilot. His first aerial gunnery against a sleeve target. Of the 60 rounds designated for the first firing he had only 2 hits, in the second--only 3. The result, as the author notes, was deplorable. But it was not in his nature to mourn over failures. The officer began studying the theory of aerial gunnery, worked on maneuver and aiming diagrams, and made the necessary calculations. Already on the third firing he had 29 hits. Soon he was "driving in" up to 40 bullets into the sleeve target, and just a short time later became an aerial gunnery sniper.

Pokryshkin also demonstrated the same tenacity and persistence in mastering maneuver in combat. In the aviation school and in combat units pilots were taught to fly in a circle and conduct mock combat by executing left turns. "Considering the psychological habit of left turns," writes Pokryshkin, "I began training myself to execute a sharp maneuver to the right." And what happened? In his first engagement he shot down an Me-109 precisely because the German pilots had also become accustomed to left turns.

So it was throughout the war. The nature of his self-analysis did not change with his positions held in the war--be it as a flight commander in 1942 or as a commander of a fighter division in 1944.

In 1941-1942, as the book attests, he polished in combat primarily techniques of a purely tactical nature--speed, altitude, maneuver, fire. In 1943, as commander of a fighter regiment, Aleksandr Ivanovich introduced into practice elements of combat support of a strike group carrying out the main mission. Tactical subunits appeared in the battle formation--prestrike target reconnaissance, false and feint groups, and a reserve hidden from the enemy.

As commander of the 9th Guards Fighter Regiment in, 1944 Pokryshkin, judging from his memoirs, was already coming up with operational-tactical categories and during combat, employment of the division's forces boldly implemented a concept he had been nurturing for a long time: massing forces on the most important axis to carry out the main mission. His requirement: create an absolute superiority over the enemy in each battle, thereby achieving not simply a defeat but a total rout.

A persistent gathering of advanced combat experience little by little, bold conclusions, decisive incorporation of findings into combat actions--in reading the book, such is the pattern of the gifted pilot's activities. In his nature was a desire constantly to share immediately with his comrades his opinions about the latest encounter with the enemy. Often in the air, before he was over the excitement and before the impressions had cooled down, as the book notes, he received the most sincere, spontaneous and, as a rule, the most reliable material for reflection, for creative work. Openness, benevolence, as well as discretion in evaluating the actions of participants in battles attracted and brought combat comrades to him; from him they learned restraint, composure, the ability to control themselves in any situation, thoroughness of analysis, objectiveness of conclusions, and not least of all the efficiency and consistency of incorporating gained experience into combat practice.

Of course, the recipes born in his "laboratory" were not always welcomed by everyone with joy. Sometimes superiors, continuing to act and think in the old way and disregarding the demands put forth by combat, not only ignored his innovativeness but also simply forbade employing and adopting it. Here is where Pokryshkin's sort of persistence, tenacity, and personal boldness were needed in order to open the way for implementing the new combat experience gained in encounters with the enemy. His principles did not shirk before any recognized authorities and high positions when he sought to introduce into aerial combat new procedures and tactical combat techniques.

Pokryshkin was a demanding, strict commander. But he was always attentive and sensitive to his subordinates.

Here is a typical example cited in the book. It was August 1944 in the Lvov-Sandomierz Operation--one of the largest battles of the Great Patriotic War. The 9th Guards Fighter Division was tasked with preventing enemy aircraft from getting to our main troop disposition heading toward the Vistula. There were fierce aerial battles going on. Under these conditions, the commanders of two air regiments--combat comrades of Pokryshkin, in essence his pupils--were careless; they deviated from Pokryshkin's directions in the main battle--which is comparable to hitting the enemy not with a fist but with spread fingers. Naturally, the young flyers became flustered and lost superiority in the air. Having noted this, Pokryshkin immediately flew from the forward command post to the airfields. He dressed down those responsible and held a critique with all flight personnel of the units. Two or three days later superiority in the air on the main strike axis of the front troops was reliably secured for our aviators.

Pokryshkin's book "Poznat sebya v boyu" is essentially an encyclopedia of fighter aviation tactics. At the same time, it is a story. Written vividly and fascinatingly, it reads interestingly from the first to the last page. Everything in it is near and understandable to any reader, but especially to those of us for whom knowing oneself in battle has become our life's work.

12567

CSO: 1801/52

MILITARY EDUCATIONAL FACILITIES

DISCUSSION OF EXPERIMENT AT TAMBOV AVIATION SCHOOL

Moscow KRASNAYA ZVEZDA in Russian 4 Nov 86 p 2

[Article by Maj Burbyga, KRASNAYA ZVEZDA correspondent: "Who Will Make the Decision? The History of One Drawn Out Experiment"]

[Text] Several years ago in the training regiment at the Tambov Higher Military Aviation School for Pilots imeni M.M. Raskovoy, engineering and technical specialists determined that not all the reserves were being used in the traditional organization of flights for increasing their quality and intensity. For example, each aircraft had its own staff, so to speak: a crew commander, a technician, and junior aviation specialists. They worked the flight shift, and that was it: the flights end, and the aircraft goes to the hardstand. The corresponding instruction requirements on this do not permit any other interpretation. Then the deputy chief of the school, Col I. Kravchenko, suggested abandoning the traditional method and switching to more intensive operation of the aircraft with a possible reduction of the aircraft fleet.

Recalling that time, Col Gen Avn V. Andreyev says:

"Actually, we were faced with the difficult problem of finding the optimum variation of the new method, having abandoned the old one. Therefore, various opinions were expressed. At first, no one took Col Kravchenko's proposal seriously. It was a paradox--to not increase but reduce the number of aircraft when we were experiencing difficulties at full strength. We might as well request additional aircraft. But he argues: 'We don't have to request anything additional. We will manage with what we have. How? Give me time, and I will show you.' The engineering calculations were soon on my work table..."

On 17 November of last year KRASNAYA ZVEZDA wrote about this experiment in the article "A Time for Searching." Its essence was that the training regiment had decided assign two technical crews to each aircraft instead of one. In other words, they decided to operate the aircraft in two shifts.

Let us say frankly, the proposal was innovative. The new method had its supporters, but also opponents; there were doubts and hesitation. Nevertheless, it was decided to conduct the experiment. The aircraft were

divided into three groups. For the purpose of planned usage of aircraft service life between overhauls with the maximum load, they initially began operating the aircraft of the so-called "lead" group, which made it possible, according to the engineer's calculations, to use the allotted limit of the aircraft service life and to conduct preventive maintenance work at periods determined by the degree of actual operation and not by time.

Thanks to this reorganization, for the first time the regiment had the opportunity to maneuver widely in using aircraft by using the "intermediate" and "trail" groups. The training process became more efficient and rhythmic, and instances of flight postponements stopped. As a result, for the first time in many years the flying time plan for the students was overfulfilled, that is, the practical training of the future military pilots, in the opinion of the school's deputy chief for flight training, Col V. Kondratyev, became more intensive with a considerable reduction in costs.

Such an organization of flights enabled each squadron commander to know what he would be doing, for example, in November of this year or in February of next year. Now the training department is compiling a precise class schedule based on the plan. This is an improvement in organization and effectiveness of supervision.

Other officers with whom I have talked concerning the introduction of the new methods in the regiment hold the same opinion.

At a conference of supervisory staff of military educational institutions of the Air Forces, the deputy commander in chief for military educational institutions of the Air Forces, Col Gen Avn G. Dolnikov, remarked that engineers such as Kravchenko are making the difference today in the schools. They obtain the maximum results in combat training with the least expenditures of material and human resources.

This is how this experiment began and provided the initial results, confirming that the hopes placed in it were not in vain. But, unfortunately, having gotten underway, the experiment is sort of up in the air. And this is not at all because the method proved to be erroneous or because inaccuracies crept into the technical estimates.

Then what is the problem? Why has something which found support and approval suddenly stopped at the halfway point?

In search for an answer, I will cite an analogy. If, for example, you are operating a KamAZ motor vehicle, but the instructions for an antiquated one and a half-ton truck are used, will everything go smoothly and easily in your work? Obviously not.

That is how it is in the school. When the positive results of the experiment were confirmed, Kravchenko suggested going farther: bring the structure of the aviation engineering service in line with this and develop instructions for the peculiarities of aviation engineering flight support. In short, legitimize that which was achieved in the regiment and try, if possible, to extend this method to other units. Here is where the "slipping" began; more

precisely, the habit of working in the old way and the fear of expressing oneself clearly took hold. After all, someone had to assume responsibility. As long as the engineer did that which affected only one regiment and did not propose anything new--there was no interference. No one had interfered with him for 5 years. And suddenly--they remembered.

According to all the engineer's reports, alas, the decisions were not made, although they were regularly recorded and kept in the aviation engineering service of the Air Forces.

Gradually, Col Kravchenko's work became the talk of the town; he became known as a person who "cannot work quietly."

It must be said that Col Kravchenko's nature is not simple. At times he is unrestrained and will sometimes judge people excessively categorically. But in this case it is not a matter of him personally, but a cause for the sake of which a person gets into a dispute.

Here one cannot help but recall the words of comrade M.S. Gorbachev. You see, this is a common occurrence, even in party agencies, he said, when our high-ranking people or those holding certain supervisory positions, having listened to the suggestions of rank and file communists, engineers, and specialists, often do not show the patience even to hear them out to the end. They are of the opinion that they know all this, that they are tired of all this, that they are tired. They have a look that says--finish. But if the other person does not finish, they say: go about your business, and we'll look into it without you.

Seeing that time was passing and no decisions were being made on the experiment, Kravchenko began to turn to higher levels of authority; he also wrote KRASNAYA ZVEZDA.

In response to his letters, a commission arrived at the school. After a "careful on-site study of the matter," it came to a clear conclusion: the new method was not new at all, but a variation of a long-existing method. Since that is the case, there is no need to change the corresponding instructions and regulations. As for the economic benefits, they are sort of questionable, or more precisely--there are none. This paper which crossed out the results of the experiment was countersigned by the members of the commission.

Why then did higher headquarters "issue" the papers: "Study," "Introduce," "Disseminate"?

In short, quite a number of questions arose, and the editorial staff turned to competent specialists with a request to look into the matter. Their conclusions, to put it mildly, did not coincide with the opinion of the commission. It turned out, the economic gains alone amounted to millions! But....

When I asked Col A. Gorokh (the conclusions were made based on his estimates) if he was sure of accuracy of the work done, I was surprised to hear that no

one had seriously tasked him to do the study. It was simply suggested that he look into it to see if there was any benefit.

"Why," he became interested, "is Kravchenko complaining again?"

This question disturbed many. During meetings with members of the commission, Col Yu. Cherenyayev, Col A. Zolotukhin, and others, I had occasion to hear: "He didn't have to write a letter. He could have worked quietly...."

Indeed, the essence of the matter was simply overshadowed by investigations into why he wrote. The main issue sort of became secondary. Many of those who objected to Kravchenko only had a general concept of the essence of the experiment. The deputy chief of military educational institutions of the Air Forces, Maj Gen Avn Yu. Seleznev, defined his position on this matter in roughly the following way: I do not want to see this Kravchenko.

But there is also another opinion.

We asked Mar Avn P. Kirsanov, whose representatives also visited the school, to express his opinion on the engineer's conclusions.

"Engineer Kravchenko is a person who thinks and is full of initiative. He proposed the obvious: replace the extensive method of operating aircraft with the intensive method."

Such was the answer. It turns out, the experiment was artificially hobbled. The old method was to someone's liking, because nothing had to be changed in it. It had been approved and was going smoothly.... But today that is no longer possible. Now we cannot get along without engaging reserves for intensification.

Recently Col I. Kravchenko was discharged for age from the ranks of the Armed Forces into the reserve. But this, of course, does not change the essence of the matter. The questions put forth by him remain. They must be seriously and thoroughly checked by engineering analysis. Who will do this? Who, having cast aside everything particular and secondary and having overcome the burden of habit, will approach this problem in a state-like manner?

12567

CSO: 1801/52

MILITARY EDUCATIONAL FACILITIES

LT GEN MOROZOV EXAMINES SELECTION OF CANDIDATES FOR SCHOOLS

Moscow KRASNAYA ZVEZDA in Russian 13 Nov 86 p 2

[Article by Lt Gen Morozov, chief of the Sumy Higher Artillery Command School imeni M.V. Frunze: "How to Avoid 'Dropout.' Thoughts on the Costs of Selecting Candidates to Military Schools"]

[Text] The first months of studies are perhaps the most difficult period for first-year students. You see, everything is new for them--both the complex training program and the strict regimen. They have to get used to many things, master many things, and abandon much which they were used to doing before. It is not just a matter of studies, but there is also a process of adapting to a completely different way of life--a stricter, more intense way of life demanding will power and persistence. By no means is it smooth going for everyone. That is why commanders, political workers, and instructors focus their efforts on helping first-year students especially. In particular, additional classes and individual talks are held with them.

Nevertheless, some of the young students are disillusioned. There are also those who submit a written request for dismissal. What is the reason? Some of the young people end up in the school by chance. They did not thoroughly comprehend their selection and did not prepare themselves morally and physically for studies at a military school. Encountering the first difficulties and mentally glancing over the path facing them, they began to ask: Do I have enough strength to see this out to the end?

How then did they become students? After all, everyone entering the school undergoes a professional selection, and experienced commanders and political workers interview them. Does that mean there were some errors made? Unfortunately, the professional selection measures and the methods used to identify personality qualities are not always effective. The professional selection groups set up in the military schools still go it alone. They experience difficulties in material and methods support.

Needless to say, the military schools bear the greatest responsibility for the quality of selection of those enrolled in military educational institutions. However, experience of recent years shows that roughly one-half of the selection is accomplished outside of the school.

It can be said from the experience of the past year that not all traveling selection boards have approached this matter responsibly. Having analyzed the reasons for dismissal of students coming in from the troops, we have concluded that many of them were sent to us not of their own desire. For example, student M. Gusev applied to the Leningrad Higher School of Railroad Troops and Military Transportation imeni M.V. Frunze; student V. Papizhuk to the Lvov Higher Military Political School; and student A. Oleynik to the Military Institute of Physical Culture. However, for various reasons they were sent to our school. So it is not surprising that later they were all dismissed at their own request. Could it really be otherwise? Here is an explanatory note from Pvt I. Kucherenko. "At the assemblies of candidates," he writes, "I and several others, having changed our mind about enrolling in school, wrote a request to be dismissed from the assemblies and be sent to our unit. But Capt Gerasimov, our commander, tore up our requests and said that we had to state our desire not to study at the school, not here. Instead of the grade of two which we had intentionally received, we were given a three." As they say, no explanation is needed here.

It is distressing that similar mistakes were repeated in candidate selection this year as well. Some commanders and members of the traveling selection boards sought at any cost to fulfill their allocation.

We also have complaints about military commissariats making selection of candidates for the school from civilian young people.

In the spring the school received the personal record for A. Bereshchenko, sent by the Zhlobin City Military Commissariat. As it turned out, the candidate did not undergo selection at all.

The school was forced to return to military commissariats dozens of personal records on candidates. The reason is that they did not meet the requirements for enrolling in military schools. Why then were the personal records sent? This reproach can apply to the Beloretskiy Rayon Military Commissariat of Bashkir ASSR, the Zavolzhskiy Rayon Military Commissariat of Ivanovo Oblast, the military commissariat of the city of Baku, and many others.

Without a doubt, candidate selection is a difficult, painstaking matter. But the workers of the named military commissariats did not wish to take this work seriously.

It is especially worth mentioning the low effectiveness of military and professional orientation of young people at schools, at SPTU's [agricultural vocational and technical schools], enterprises, and kolkhozes. I reflect on this, as they say, from recent experience.

Not long ago student Yu. Vaychyus submitted a request for dismissal. It was not easy for me to sign this request.

I had a long talk with the student.

Vaychyus had learned about the romance of military service and the distinguished profession of a Soviet officer mostly from stories of a military

instructor at the SPTU. He was the one who suggested to the young people studying there to enroll in a military school. Vaychyus chose a tank school. But disappointment awaited him at the military commissariat to which he turned: he was too tall to be a tanker. Then Vaychyus rewrote his application to a different school, this time a combined arms school. Why there? He explained his choice simply: the school was located in a large cultural and historical center. Later Vaychyus thought it over again and finally was enrolled in our school. But, as we see, not for long.

Of course, talks are conducted with civilian young people about the officer profession. But these talks, often not backed up with serious talk about the responsibility of such a decision and about the difficulties a military man encounters, are short on information about what a certain military specialty involves. They do not bring about the desired results, and sometimes simply disorient young people. Who is guilty here, the military instructor? He is partly, since he is supposed to provide a young person with the necessary information about a specific military specialty and give his recommendations on choosing a military school, based on an analysis of progress, aptitudes, interests, certain personality qualities and psychological and physical characteristics.

Documents in candidates' personal records are not always objective and accurate. If one is to believe the papers, then only sportsmen and GTO badge wearers enroll in the school. But this is far from the truth. In a certification of the secondary education, the grades also do not always correspond to the actual knowledge. Last year we conducted an analysis which showed that progress according to outstanding grades was confirmed in 17 out of 100 cases, and in 30 of 100 according to good grades. In general, the knowledge of those enrolling in the school, especially for the basic disciplines--mathematics, physics, Russian language, and literature--left much to be desired.

Now a few words about the school references on the candidates. They were written pretty much in the same way: is industrious, has sound knowledge, reads much, is learned. But do they disclose the personality traits of the student, his interests and inclinations? No. As a rule, the references also do not mention the volitional qualities of the young person, his regard for comrades, or his attitude toward military service.

Yes, the big and important question is who will come to us tomorrow and continue and multiply the traditions of our school. I would like our candidate to be one who is dreaming of becoming an artillery commander, prepared to labor selflessly and with inspiration at the school for the sake of bringing the lofty and bright dream into reality. And it is possible to do this only through the comprehensive work of everyone--beginning with the military instructor at the school and ending with the receiving schools or selection boards. This is the real, albeit difficult way. I see no other.

12567

CSO: 1801/52

MILITARY HISTORY

MSU KULIKOV COMMEMORATES MARSHAL ZHUKOV

Moscow KRASNAYA ZVEZDA in Russian 30 Nov 86 pp 2-3

[Article by Marshal of the Soviet Union V. Kulikov: "True to his Duty -- the 90th Anniversary of the Birthday of Marshal of the Soviet Union G. K. Zhukov"]

[Text] Georgiy Konstantinovich Zhukov. The name of this statesman and military figure, outstanding military leader, Marshal of the Soviet Union, one of the active builders of the Soviet Armed Forces and four-time Hero of the Soviet Union is inscribed in gold letters in our country's history.

In his declining years Georgiy Konstantinovich said, "I am happy that I was born a Russian and that during the last war I shared with my people the bitter taste of many losses and the happiness of Victory." And he further said, "I have always considered my highest rank to be that of Communist-Bolshevik, a rank that I have held for more than 50 years. I owe all of my merits and achievements primarily to the Party which thoughtfully advanced me, assigned me to command positions and taught me to be stern and impartial so that I could move forward and upward..."

These words are more than the summation of a life. They are the key to understanding why it is precisely in our country that a military personage of the magnitude of Marshal Zhukov could appear, develop and get firmly established. The son of a poor peasant from the Kaluga area, he was of one flesh with his people and lived their same life.

G. K. Zhukov's military service began during the First World War. Even then he was a brave, decisive soldier who was full of initiative. He very quickly became a junior non-commissioned officer and was awarded two Crosses of St. George.

What could such an outstanding and valiant cavalry soldier expect in the tsar's army? The best would have been a junior officer's rank. But the Great October Socialist Revolution had come true and this radically altered his fate. In 1918, hardly recovered from a serious illness, Zhukov voluntarily entered the Red Army. He took part in numerous battles with the White Guards on the various fronts and also participated in the elimination of the Antonovshchina [Kulak socialist revolutionaries] and Kulak bands. In the severe year of 1919 Georgiy Konstantinovich became a member of the Bolshevik

Party. Zhukov later stressed, "From then on I tried to subordinate all of my thoughts, aspirations and actions to my obligations as a party member..."

The Civil War died down. After deciding to dedicate his life to the army and the armed defense of the Fatherland, regardless of what post he was in, G. K. Zhukov always adhered to the principle "Teach the troops what they need for war." He understood very well that military art is extremely fluid and that the assets, methods and forms of armed warfare are constantly developing and improving. One must know and be able to foresee all of the trends.

A skillful, purposeful commander who was constantly looking for new methods, Zhukov confidently and, it seemed to some, easily rose up the service ladder. He commanded a regiment and a brigade, was the RKKA [Workers' and Peasants' Red Army] deputy inspector of cavalry, commanded a division and a cavalry corps and was deputy commander for the Belorussian Special Military District. He achieved all of this because of his tremendous efficiency, will, and finally, talent. Georgiy Konstantinovich showed himself to be a knowledgeable commander, skillful organizer and thoughtful educator of personnel at every one of his posts. Proof of this is the Order of Lenin which he was awarded in 1936 for successes in military troop training.

The year 1939 holds a special place in Zhukov's biography. It was then, in Mongolia on the Khalkhin-Gol River that Georgiy Konstantinovich's career as a brilliant military leader began. The forces of the 1st Army Group which he commanded were operating with units of the Mongolian National Revolutionary Army. They had surrounded and in a short time routed an enormous grouping of Japanese troops that had invaded the territory of the fraternal country. G. K. Zhukov was awarded the rank of Hero of the Soviet Union for skillfully leading his forces and for displaying bravery and courage.

The outstanding gift of military leadership that Zhukov had was shown with specially clarity and totality during the Great Patriotic War. During that war he became the RKKA Chief of General Staff and a general of the army. On 23 June 1941 Georgiy Konstantinovich was assigned to Supreme High Command Headquarters. In August of 1942 he became the First Deputy to the USSR Narkom [peoples' commissariat] of Defense and deputy to the Supreme Commander-in-Chief I. V. Stalin. On 8 May 1945 Marshal of the Soviet Union Zhukov accepted the surrender of Fascist Germany's Armed Forces.

Georgiy Konstantinovich was in intense and critical areas of the war throughout its duration. He commanded the Reserve Forces, the Leningrad, Western, 1st Ukrainian and 1st Belorussian Fronts which were on the most important avenues of the Soviet-German Front. As a representative of Headquarters, Supreme High Command, he coordinated the operations of groups of fronts during the very largest operations.

Zhukov played an exceptionally important role in the initial, most difficult period of the war. Marshal of the Soviet Union I. Bagramyan wrote, "I would think that our people were very fortunate that it was precisely this committed military leader with his sober, analytical, phenomenally tenacious mind and inflexible will, a man who never lost his self-control and clarity of thought, who in those difficult times was at a post that was so important to the

defense of the Motherland (Chief of the General Staff - V. K.). Thanks to all of these qualities... he made essential contributions in preparation for repelling aggression and organizing the rebuff of the enemy."

G. K. Zhukov arrived at the headquarters of the South-Western Front late in the evening of the first day of the war. As a Headquarters representative, he worked with the front command to organize a counter-strike on the flanks of the Hitlerites' 1st Tank Group which had broken through toward the east. The largest tank battle of the beginning of the war took place in the area of Brody. Its primary result, as Georgiy Konstantinovich himself later noted, was that it disrupted at its beginning the enemy plan to penetrate to Kiev swiftly. I will add that Hitler's Blitzkrieg or "lightning war" suffered a heavy blow.

G. K. Zhukov used his powerful talent to inspire practically all the strategic plans of the Supreme High Command and the concepts of the brilliant operations that routed and destroyed the enemy, operations that were entered into the golden tomes of military art. Along with the other outstanding Soviet military leaders, Georgiy Konstantinovich was an active and direct participant not only in their development, but also in their execution. The victories of Soviet forces at Moscow and Stalingrad, at Kursk and on the Right Bank of the Ukraine, in Belorussia, in Poland and in Germany are linked with his name. The forces of the 1st Belorussian Front which he commanded took part in the Berlin Operation, as a result of which Hitlerite Germany surrendered and the Banner of Victory flapped over the Reichstag.

Many "scientific works" were published in the West after the war. Their authors attempted to reduce the Soviet Armed Force's role in the defeat of Fascist Germany. Bourgeois historians subjected Soviet military art to especially vile attacks. Towards this goal they constantly tried to belittle and even totally silence the services of G. K. Zhukov and misrepresent his image.

These attempts were in vain. Through the depth and might of his talent and his own ideological and moral qualities Marshal Zhukov was a true and worthy son of the Socialist Motherland and the Communist Party. He embodied the best traits of Soviet man, a patriot and an internationalist.

Georgiy Konstantinovich said, "We will always remember which of our people's qualities helped overcome the enemy. Endurance. Courage. Extreme persistence. Love for the Fatherland. These qualities which were tested by the fire of war will always be with us. And victory will always be ours."

The Soviet soldier was the embodiment of these qualities for the Marshal. It was not by accident therefore that his own book, "Vospominaniya i Razmyshleniya" [Memories and Reflections] was dedicated to him, the Soviet soldier.

It would be incorrect to portray Marshal Zhukov as a child of fate, a person to whom everything was easily and simply given. This would mean voluntarily or involuntarily distorting this aspect of the military leader and denigrating his talent. Georgiy Konstantinovich was able to master all the subtleties of

military art exclusively as a result of persistent work, intense study and, most of all, self-education. Proof of this are memories of the Marshal himself, his friends and coworkers. Marshal of the Soviet Union Rokossovskiy wrote, "Zhukov, like no one else, gave himself to the study of military science. For him, it was the supreme cause and duty."

Loyalty to his responsibility and dedication to the business that he had selected once and for all -- these were the core of Zhukov's nature. These formed the foundation on which the bold decisions and daring concepts which were distinctive traits of Georgiy Konstantinovich's creative personality and military leadership skills were developed and molded. He was able to penetrate rapidly into the essence of occurrences and events, examine them comprehensively and in close dialectic unity, and correctly evaluate them. This allowed him to foresee correctly and consider the possible development of the operational-strategic situation and foretell the concept and possible nature of enemy operations.

G. K. Zhukov possessed flexible and original thought, strong will and courage. He confidently moved to achieve the assigned goals and forcefully and without wavering put the decisions he made into practice. Georgiy Konstantinovich also possessed a valuable gift -- the ability to unite people. He constantly relied on his staff and political section in his work. He was always concerned about training and educating military cadres and greatly prized independence, creativity and original actions in his subordinates. In thinking about those qualities, he often said that we need people with passion. I should note that Marshal Zhukov was able to recognize and critically evaluate his errors and failures and made the correct conclusions from them.

One of the most important military figures of this era, G. K. Zhukov made outstanding contributions to the development of military art. He enriched it with experiences in training and conducting both offensive and defensive operations. Georgiy Konstantinovich was an example of how to approach studying the enemy, evaluating his forces, assets and capabilities and selecting methods of operation and the avenue for the main strike. He always tried to rout the enemy primarily through mass fires, a surprise attack and flexible force maneuvers.

Possessing a decisive and stern nature and military to the core, G. K. Zhukov was also a thoroughly humane individual. Georgiy Konstantinovich often said, "When the war was on, all of us, and I include myself, were fully resolved to render the fascists their full due for the outrages they committed in our land. But did we have the right to that sacred revenge? Certainly. But we restrained our anger. Our ideological conviction and internationalist feelings did not allow us to strike out in blind vengeance. And the educational work in the army, work that was conducted by communists, and also the generosity that is peculiar to our people played an enormous role in this."

One of the main creators of Victory and twice awarded the highest military decoration, "Victory," he did not like to talk about his own personal services. Georgiy Konstantinovich attributed all of his successes to the

Communist Party, the Soviet people and its brilliant Armed Forces. Zhukov noted, "I will frankly say that we would not have been able to defeat the enemy if we had not had the experienced and authoritative party and the Soviet socialist social and state structure whose powerful material and spiritual forces allowed us to restructure all the country's vital activities in a very short time to create conditions for the Armed Forces to rout Fascist Germany."

In the post-war years G. K. Zhukov held a number of responsible positions in the USSR Armed Forces. He was the first Commander-in-Chief of the Group of Soviet Forces in Germany and the Commander-in-Chief of the Soviet Military Administration, Commander-in-Chief of Ground Forces and Deputy Minister of Armed Forces. He later commanded the Odessa and Ural Military Districts, was First Deputy Minister and then USSR Minister of Defense. While in that office G. K. Zhukov did a lot to further improve the Army and Navy, strengthen their military power and increase their military preparedness.

Throughout his entire life, Georgiy Konstantinovich, a celebrated military leader, military-communist and fiery patriotic and internationalist, was a clear example of selfless service to the Motherland and dedication to the affairs of the Communist Party.

12511

CSO: 1801/88

FOREIGN MILITARY AFFAIRS

WESTERN DEVELOPMENT, USE OF AIR CUSHION VEHICLES

Moscow KRASNAYA ZVEZDA in Russian 22 Oct 86 p 3

[Article by Capt-Lt (Res) A. Popov: "Air Cushion Vehicles"]

[Text] Former Chief of Naval Operations Admiral Zumwalt once stated that air cushion vehicles (ACV) may comprise the basis of the first fleet in the world with speeds of 100 knots and that such a fleet would be able to return to the United States the "lost naval superiority." Today a number of foreign experts believe that combatant ACV's equipped with antishipping missiles, helicopters or VTOL fighters could have indisputable advantages over any water-displacing ships with similar weapon systems. If ACV's are equipped with submarine detection gear and antisubmarine weapons, they will prove to be a menacing weapon against the "submarine danger."

Other supposed merits of ACV's are also being publicized in the West. If they are used as aircraft carriers, thanks to their high speed the takeoff and landing conditions of deck aircraft should improve considerably. Military transport ACV's could cross the Atlantic in 30 hours with a load of several thousand tons. In addition, foreign observers note, the ACV's have minimum contact with the surface of the water, have a low noise level, and represent a difficult target for a torpedo attack. It is also noted that the low physical field levels of ACV's do not trigger modern mines with hydrostatic, acoustic, and magnetic mechanisms. The ACV's do not require expensive deepwater ports and docks. In short, they are publicized as wonder-ships capable of making a revolutionary change to the traditional makeup of military fleets.

Just what circles are involved in creating the sensational noise about future navies based on ACV's is clear from the financial calculations which accompany the forwarding and discussion of each new project. Thus, according to predicted estimates of American experts, building a 5,000-ton nuclear-powered ACV, if the project is implemented, will cost more than \$1 billion "apiece."

The air cushion principle itself was introduced into shipbuilding back in 1916 by the Austrian engineer Tomamhul. His torpedo cutter with an unusual engine developed a speed of up to 40 knots. Some 40 years later a 3.5-ton air cushion vessel was built in England, which crossed the English Channel at a speed of 25 knots. It was developed for civilian purposes, but naval circles of capitalist states became interested in the work. Since the late fifties,

military use of air cushion vehicles in the West has been growing increasingly broader. England set the tone when it built the SR No 3 in 1964 weighing 6.7 tons and with a speed of 60 knots.

Not waiting for construction of American ACV's, the United States bought seven of these ships in England, armed them with machine guns, and covered them with light armor. These ships underwent combat testing in Vietnam, used as landing and transport craft. Foreign experts believe that the ACV's proved to be especially effective in swampy, shallow-water areas and river deltas overgrown with rush. They were often guided to the target from the air by helicopters.

It is believed in the United States that the high speed and amphibious qualities of ACV's make it possible to use them as assault-landing ships for landing assault forces jointly with helicopters from "Tarawa" class general-purpose landing ships and from "Austin" class helicopter dock landing ships. For this purpose, the United States is building the JEFF (A) and JEFF (B) air cushion vehicles with a speed of 50 knots. In the opinion of foreign experts, use of JEFF-class ACV's as assault landing craft in operations makes it possible to land assault forces on 70 percent of the coastline of the world ocean versus 17 percent when using conventional water-displacing craft.

Research is being conducted in England on using ACV's in an antimine defense system. In 1975 a force of ACV-minesweepers was deployed. As a result of testing, it was established that ACV's had a greater degree of protection against underwater explosions than water-displacing ships. The merits of ACV-minesweepers also include their low acoustic and magnetic fields, smaller crews, and simplicity of their servicing and repair due to their ability to come ashore under their own power. It has also been established that the American MK105 magnetic-acoustic sweep, with which U.S. Navy helicopters are equipped, can be successfully towed by BH7 and VT2 air cushion vehicles.

The Pentagon is carrying out a wide-scale program for combatant and military transport ACV's. The initial purpose of the work under the SES program was stated as developing an experimental skeg ACV weighing up to 10,000 tons and with a speed of 80-100 knots and carrying antisubmarine warfare (ASW) aircraft or missile weaponry. Work has been started on developing 3,000-ton air cushion ASW frigate, foreign press reports, as one stage of carrying out the research planned under the SES program. It will be 15 times heavier than the largest foreign ACV, the 200-ton British SR No 4, and have a speed in excess of 80 knots.

A large amount of design work has been done in advance within the framework of the SES program. Variants of skeg ACV's weighing 3,000-3,500 tons and carrying helicopters, 4,000-5,000 tons and carrying VTOL aircraft, and 10,000-15,000 tons and carrying conventional deck aircraft have been considered. Studies have also been done on a cruiser skeg ACV with aircraft armament, weighing up to 20,000 tons, and having a speed of 80-100 knots. The possibility of developing a multipurpose skeg ACV by the year 2000 weighing 20,000-30,000 tons and having a top speed of up to 125 knots in aircraft carrier and helicopter carrier variants has been studied.

In addition to the ACV variant with aircraft armament, an ASW variant weighing 20,000-30,000 tons and armed, as foreign experts note, with promising thermal and radioactive submarine detection systems has also been considered. Also being considered is the development of an assault landing ACV weighing 3,000 tons, from which a landing of assault forces can be accomplished with the aid of currently existing JEFF (A) and JEFF (B) assault landing ACV's.

Similar work is also being conducted in England and France.

The development of large ACV's is being impeded by a series of problems, about which the publicizing mouthpieces prefer to be quiet. Publications for specialists state the difficulties of aerodynamic design, development of a propulsion system with sufficient power, accommodating weaponry, and so forth. Traditional shipbuilding materials do not meet a whole series of requirements emerging in the stage of implementing design developments. All this has already resulted in a significant increase in financial expenditures compared to initial projections and in a slowdown in pace of program implementation. The opinion of those designers and admirals who stated that water-displacing combat ships would become museum exhibits by the mid 1980's has proven to be wrong. But subsidies allocated for a fleet of future super-ACV'S at the expense of taxpayers continue to grow.

The military-industrial complex of the West has already extracted hundreds of millions of dollars from the "air cushion" and has no intention of turning away from the self-advantageous course toward super-profits.

12567

CSO: 1801/52

FOREIGN MILITARY AFFAIRS

EFFECTS OF EMP STUDIED

Moscow VESTNIK PROTIVOVOZDUSHNOY OBORONY in Russian No 3, 1985 (signed to press 1 Mar 85) pp 81-83

[Article by Lt Col V. Simonov: "Electromagnetic Pulse --A New Weapon?"*]

[Text] Until recently, the foreign press reports, Western military specialists believed that the survivability of all objects depended largely on their ability to withstand four destructive factors of a nuclear explosion: the shock wave, thermal radiation, penetrating radiation and radioactive fallout. The shock wave, which caused mechanical destruction, was viewed as the strongest destructive factor.

Under present conditions, when a continuous process of introducing electronic equipment in troop and weapons control systems is taking place, the foreign press reports that a fifth destructive factor -- electromagnetic pulse, abbreviated EMI [EMP] -- has begun to take on particular importance. Underground and airborne command posts, missiles and aircraft which have not received dangerous damage from the first four destructive factors of a nuclear explosion, may turn out to be nonviable due to the effects of EMP. Even when structures protected against EMP exist, wear and tear on them in a nuclear explosion may leave an object isolated from other objects for some time.

As the LOS ANGELES TIMES reported, in Livermore, California there is a laboratory where the employees are working on the creation of a "super weapon." (L. Wood), chief of the super secret Group "0" of this laboratory, places great hopes on the military use of the electromagnetic pulse of a nuclear explosion. According to American calculations, a 50 megaton hydrogen bomb exploded 300 km above the ground can knock out electronic systems and electronic transmissions across an entire continent. The press does not conceal that the main goal of these calculations is to "utterly burn out the whole Soviet Union and paralyze its communications, electronic transmission lines and military complexes." Thus, American scientists view EMP as an ordinary "super weapon."

What is the nature of the electromagnetic pulse of a nuclear explosion? According to the foreign press there are at least two different mechanisms for

*according to foreign press materials

making a pulse. The first is associated with the fact that in an explosion initial gamma radiation drives electrons, called Compton recoil electrons, out of the atoms and molecules of the munition and environment. Each of them in its path gives rise to many thousands of secondary electrons. As a result there occurs a relative displacement of positive and negative charges, which leads to the appearance of a strong electrical field. A second mechanism operates along with the first. Immediately following the explosion, the products of the explosion are a high temperature ionized gas or plasma, which expands rapidly. As a result of the interaction between the geomagnetic field of the Earth and the charged particles in the expanding plasma and the very highly charged surrounding ionized gases, disturbances, which constitute a magnetohydrodynamic wave, begin to extend out from the point of the explosion. Interacting with the dense layers of the atmosphere, it is manifested as an ordinary electromagnetic wave or magnetic disturbance. The press notes that the second mechanism for forming EMP is especially important for nuclear explosions at very high altitudes.

The danger of the effects of EMP can be judged from examples brought out in the foreign press. On 8 Dec 1963 a Boeing-707 aircraft with 80 passengers on board caught fire and exploded in the air as a result of being struck by lightning. On 14 Nov 1969 the Apollo-12 spaceship was struck twice by lightning during launch. The ship's power supply was destroyed. On 14 Oct 1981 most of the Columbia was without electric power for several hours, since lightning knocked out the cyclic power supply system. In the U. S. every airplane in use is subjected an average of once per year to such a strong lightning strike that it requires repair. Specialists believe that the effects of EMP are similar to those of lightning.

American specialists believe that EMP from a nuclear explosion will have a stronger effect than that of lightning. First, lightning is a highly localized intense electromagnetic process, while EMP can encompass a large geographic area. Second, EMP grows in time 2 or 3 orders of magnitude faster than the pulse of a charge of lightning, and its amplitude is greater. Third, EMP is characterized by a wider frequency spectrum. It occupies the range of radio waves which are used by SDV [ultra-long wave], DV [long wave], SV [medium wave], KV [short wave] and UKV [ultra-short wave] radio stations. A large part of the energy emanates at low frequencies (up to 30 kilohertz).

According to the foreign press, the main parameters of EMP, which determine its destructive effect, are the characteristics of change in the time of intensity of electrical and magnetic fields, as well as the amplitude of the pulse. They depend on the type of burst, yield of the nuclear weapon, parameters of the environment, distance from the center of the burst and other factors. For example, for EMP from a ground burst a sufficiently high level of intensity of the vertical electric field lasts for several tens of microseconds or longer, and the amplitude of intensity in the air at a distance of several kilometers from the center of the burst may fluctuate from a kilovolt per meter (for low-yield weapons) to tens of kilovolts per meter (for high yield weapons). In an exoatmospheric explosion a pulse may last from 1.0 nanoseconds (10 to the minus 9 seconds) to 0.1 milliseconds (10 to

the minus 4 seconds), and the amplitude of the pulse may be several kilovolts per meter at a distance of hundreds of kilometers from the center of the burst.

High electric potentials relative to the ground are induced as a result of the effect of EMP on metallic objects. Very high electrical potentials, both relative to the ground and between the wires and strands of cable, arise in underground and above ground wire, as well as cable lines. According to calculations of foreign specialists, surges between wires of above ground communication or electric power lines may be hundreds of volts, and between the wires and the ground may be tens and hundreds of kilovolts during nuclear surface and air bursts, within a radius of several kilometers from the center of the burst. The voltage between the antenna and the ground may reach several kilovolts.

At the same time, it is noted that laying cable underground protects it from mechanical damage, but not from the effects of EMP. The surge voltage between the cable and the ground may reach several tens of kilovolts. With nuclear high altitude bursts a surge in above ground lines arises at distances up to several hundreds of kilometers from the center of the burst. EMP may cause a breakdown in the ground insulation of wires and cables, breakdown of insulation and burnout of receivers, breakdown of transformers, burnout of fuse links, breakdown of low power relays, etc.

Foreign specialists note that EMP effects disorder or destroy certain types of magnetic memory. The most widespread damages to semiconductor elements are surface breakdown, capacity breakdown, dielectric breakdown and fusing (puncturing the base). It is believed that resistors are more resistant to the effect of the transient processes created by EMP than are the other elements. Induced high voltages may be dangerous to maintenance personnel, and electrical discharges and igniting of electric arcs may cause fires and explosions.

Protection from EMP, the foreign press notes, is a complex engineering problem. Methods of protection may include screening, optimal spatial placement of equipment, grounding of some parts, use of electrical high voltage discharge equipment and other methods.

In the opinion of foreign specialists, screening systems against strong EMP effects through the use of conducting material is effective in improving overall system stability. In reinforced concrete structures, reinforcement bars may be joined electrically in closed turns, which provides an acceptable degree of screening. When placing equipment within a screened structure, it should be taken into account that charges are concentrated near sharp corners, walls and protrusions, as a result of which the electromagnetic field is increased. Therefore, the field in these places may be much greater than in the center. As a rule, breaks in screens worsen their properties.

Therefore, when reinforcement bars are used as screens, they are not cut off near breaks, but are joined along the perimeter of the break, in order to create a closed electrical contour around it. Foreign specialists attempt to insure electrical continuity between the door and the screen. Since doors and

hatches are often opened and closed, flexible conducting contacts are affixed to them. If the metal thresholds and ends of doors are painted, the paint forms an insulating layer, which nullifies the screening effect of the door apparatus.

It is noted that screening effectiveness is reduced due to seams and cracks in the screen. As a rule the material in the seam has more resistance than the material in the wall of the screen. As a result, when currents flow on the external part of the screening structure, a relatively high voltage drop occurs in the seams. This creates an intensive field near the seam within the structure. Screening may not have the desired effect if cables and pipes which carry large EMP currents are fed into the structure. In foreign countries, dischargers and other apparatuses are used to draw off currents. Grounding the apparatus guarantees equal potentials in all apparatuses that the operator may touch, which eliminates the possibility that he will receive an electric shock. As it is noted abroad, one protective measure is to turn off the entire system or the most sensitive equipment on the most effective EMP receivers during the period that the enemy is using nuclear weapons. Another approach is to create a reserve supply of operable equipment units and assemblies.

As they create this new "super weapon," American military specialists are simultaneously carrying out measures to protect their armed forces against it. These measures are being developed most intensively in strategic offensive forces. In 1980 work was completed on increasing the protection of Minuteman missile system launch silos against the effects of the shock wave, radiation and EMP. Devices which screen the most sensitive elements of the missile control system, as well as switch off the equipment at the moment of pulse, have been installed at the missile complexes. According to foreign press reports, the new American MX ICBM is undergoing testing of its resistance to the effects of EMP. The aim of the testing is to obtain data on the critical amounts of electrical current that arise from the effect of EMP and penetrate to the most important elements of the missile. These data will be used to disclose those points of current penetration which require additional screening. Screening of the most important equipment is being carried out in a special program of EMP protection at the main U. S. Air Force Strategic Air Command bases. Strategic aviation aircraft are being fitted out with means of protection and with electronic equipment that has enhanced resistance to EMP.

Foreign press materials note that the U. S. Armed Forces command views EMP as a weapon which, in the event that war is unleashed, can "blind" and even knock out the state and military technical means of command, control and communications of the opposing side. Thus, the aim of developing this next "super weapon" is the delirious desire of the U. S. administration to achieve strategic military superiority over the Soviet Union.

COPYRIGHT: "Vestnik protivovozdushnoy oborony", 1985.

9069

CSO: 1801/98

FOREIGN MILITARY AFFAIRS

BRITISH MILITARY PREPARATIONS CRITICIZED

PM121237 Moscow KRASNAYA ZVEZDA in Russian 7 Jan 86 First Edition p 3

[Article by Lt Col V. Markushin: "Counter to Logic; on the Intensification of Britain's Military Preparations"]

[Text] Nearly 5 years ago, exulting over the victory in the Anglo-Argentinian military conflict, the reactionary British press called it a "banner for the future resurrection of the former might of the British Empire." The true meaning of this exultation was not grasped immediately, or indeed by everyone, in Britain. The chauvinist fumes from the military success in the Falklands (Malvinas) were used like a smokescreen as cover for the country's entry into a new stage of the arms race.

It should be noted that Britain, which once flourished by plundering other peoples, today ranks a very modest 17th among the developed industrial states in terms of the dimensions of its per capita GNP. Of the 50 most backward regions of the common market countries 22 are on British territory.

But this unenviable position does not moderate the imperial ambitions of the ruling circles, which continue to lay claim to some kind of special role in international affairs. As a means of ensuring this status they have chosen unconditional support for all Washington's aggressive undertakings and undisputed leadership among the West European NATO allies with respect to material expenditure on the preparation of war. During the Conservative Party's term in office (since 1979) the military department's budget has more than doubled. In the current 1986-1987 fiscal year it is 18.5 billion pounds sterling, which will put Britain in the lead among the West European countries in terms of per capita military expenditure.

Ignoring objective economic laws, the Tories seem to be deliberately demonstrating the "British dislike of theory" and are trying to maintain the illusion that the expanding military production is shoring up the national economy. With the aid of a deliberately garbled invoice the mass media in the control of conservative circles are drawing a sorry picture of the future: in the event of a reduction in expenditure on military needs or, God forbid, total disarmament, the economic situation would allegedly deteriorate still further, the number of unemployed would become terrifying, and the traditional moderate British way of life would be thrown into confusion.

It must be admitted that this propaganda campaign, geared exclusively to the man in the street, is doing its job. All the more so since the story of the "Russian threat," which confirms the lingering belief that those in higher places are concerned for security day and night when they extract huge sums from the national pocket, serves to season it. In particular substantial sums were needed to reequip the British nuclear missile-carrying submarine fleet. In September the head of the cabinet personally took part in the ceremonial laying down of the first of the four nuclear-powered ballistic missile submarines on which the Trident missiles will be deployed. It is planned to equip the British Navy with these missiles by the mid-nineties, which will cost at least 10 billion pounds sterling. On the other hand, according to the British Admiralty, qualitatively new opportunities will be opened up before the British submarine fleet: Replacing the 84 Polaris missiles with the more sophisticated Trident-2 missiles will make it possible to increase sharply (from 128 to 896) the number of targets planned for destruction on enemy territory.

So it is not a case here of "a yawning gap in national defense" with nothing to fill it. There are different intentions here. It is not only the program for increasing Britain's strategic nuclear potential which eloquently attests to these intentions. London's desire to expand British firms' participation in the implementation of the U.S. "strategic defense initiative," the approval of the United States' mass production of chemical weapons for West Europe, the continuation of its own nuclear tests--all this in no way tallies with official government representatives' statements about their peace-loving designs. And indeed the approval of Washington's position in Reykjavik and the statements on the need to keep U.S. medium-range nuclear missiles in West Europe attest to the Tories' true intentions. Moreover, in her recent Christmas speech the British prime minister called for the country's further militarization and the expansion of military preparations.

In revving up the military machine London assigns a special role to the preparation of the ground forces and above all their shock grouping--the British Army on the Rhine, deployed on FRG territory. Designed, as it is customary to put it in Britain, for the defense of the country "on the front line," this army is being rapidly equipped with the most sophisticated equipment, primarily armored equipment. Its personnel are subjected to intensive ideological brainwashing.

True, it is becoming harder with every passing day to intimidate the British with the nonexistent "Soviet threat." The assertive, consistent Soviet foreign policy is winning supporters even among those a long way from socialist convictions. Realizing this, specialists in the "brainwashing" field are resorting to what are, to put it mildly, ungentlemanly methods. In particular it is a case of so-called "realistic training." For instance, an entire subunit is dressed in the uniforms of Soviet soldiers and for 2-3 days it lives and acts allegedly in accordance with Soviet Army procedure. The word "comrade" is introduced in communication between servicemen, the subunit engages in "drill training in the socialist spirit," and the personnel

are read lectures on "the advantages of barracks socialism over the Western way of life..."

In conflict with the natural logic of life and with common sense, the British ruling circles run the risk of turning their country into the unconscious weapon of the darkest forces pushing the world toward catastrophe.

/9599

CSO: 1801/99

FOREIGN MILITARY AFFAIRS

KRASNAYA ZVEZDA VIEWS NATO'S CONVENTIONAL ARMS POLICY

PM151545 [Editorial Report] Moscow KRASNAYA ZVEZDA in Russian 11 January 1987 First Edition carries on page 3 under the headline "NATO: Seeking Superiority" a 2,000-word military-political review by own observer Vasiliy Pustov. Pustov claims that NATO has launched a "frontal attack on detente" and disparagingly quotes General Rogers' statement that success would have been the "very worst" result of the Reykjavik summit. After examining the corresponding NATO and Warsaw Pact strengths in certain conventional arms, the author decides that "approximate parity exists in conventional arms and armed forces." However, he stresses that NATO is expediting the "development and production of state-of-the-art weapons" such as the MLRS multiple rocket launcher system, cruise missiles, and others, "which are close to tactical nuclear weapons in terms of their power and effectiveness." He notes that, despite their not being military members of NATO, France and Spain are "increasingly playing an active part in maneuvers and other militarist actions" undertaken by NATO during rehearsals for "all types of war," including the new U.S. doctrine of "total conventional war." Pustov briefly examines the Rogers follow-on force attack strategy and claims that it "lowers the nuclear threshold." He concludes that no serious military specialist "would deny the probability that small wars escalate into large wars, and conventional wars escalate into nuclear wars."

/9599

CSO: 1801/99

END